

March 2015 RM9.90



internationally trusted technology magazine

Surf Safe With
HTTP/2

Illegal Movies –
Worth The Risk?

Samsung SEA
Forum Explained

BUILD YOUR OWN PC

Step by step in crafting
your next number
cruncher

PLUS: We review 3 of the latest smartphones from China, ASUS GR8, and the MSI GT80 Titan

ISSN 1675-0322



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To New Beginnings

"The future depends on what you do today" – Mahatma Ghandi

Hello everybody, I'll be your captain of the ship today. I foresee some rough weather due to the GST, but other than that, the technology sea will still be calm yet interesting as ever.

After a quick stint in the lifestyle world, I find myself back in the nitty-gritty tech universe (really now?) to see and help CHIP magazine through 2015. I hope, fellow loyal readers of CHIP, will be kind enough to give me a word or two if you find the magazine astray, so I can steer it back to the right path.

Indeed what a path we have for March, as I'll be heading off to Barcelona to check out the Mobile World Congress, where the latest and greatest of the mobile world gather and showcase their latest tricks and gimmicks to woo us into their ecosystem. You can find out what we thought about it in the April issue, but this

month is no less exciting.

We have crafted a great step-by-step guide in building your own PC. While many of you already have the knowledge in setting up your own desktop tower, you can share with your mates or family members this guide, so they can share the same knowledge and joy you get when something you build with your own two hands starts up for the first time.

Of course we have a list of new products in our test lab, as Nazrin tests the new MSI GT80 Titan – the first laptop with a built-in mechanical keyboard. How crazy is that thing? Plus, we have a whole bunch of new stuff, including the new Samsung Galaxy Note Edge, Meizu MX4, ASUS X99-pro and even the Razer Blackwidow Ultimate keyboard.

Don't forget to read the report on HTTP/2 and how it will make life easier in the web, and learn some tricks to speed up your Android device.

Thanks for reading, and have a great day ahead.

Sharil Abdul Rahman



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Build Your Own PC

If you want a written record on how to build up a PC so you can share it with your mates, we have you covered this month with an easy step-by-step guide



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Illegal Movies

Yes we know that some of us may like to 'liberate' movies online - but are you covered on the legal front? Is it safe to do it? What about Youtube? We talked to some experts that weigh in on this matter



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Android Tune Up

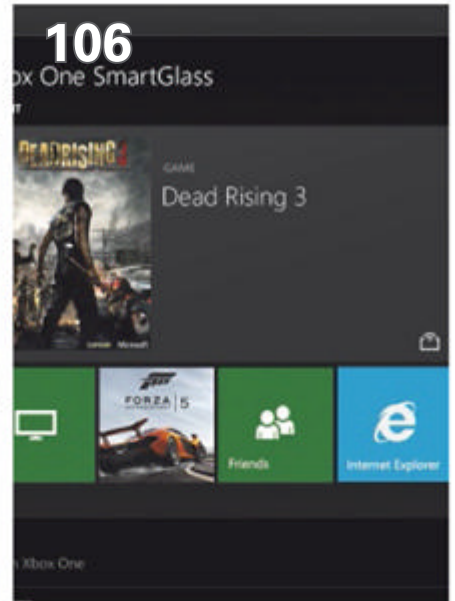
Your old-school smartphone is lagging while posting something online? Media playback is choppy? We have some tips to make things go smooth as butter again



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You are taking the necessary steps to start your online business - but what are they? We share some important points with you here

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CHIP Downloads

We're back with our monthly dose of interesting, free and handy tools for you to enhance your PC experience. If you want to know how you can get these files, follow the instructions below:

1. Head on our website @ www.chip.com.my and right at the top, click on the "Downloads" tab
2. After that, click on the respective month's post. You will then be prompted for a password. The password can be found on this page monthly.
3. Navigate using the tabs and pick the categories you want to download the files from. Once you find the file you want, just click on it and you're good to go!

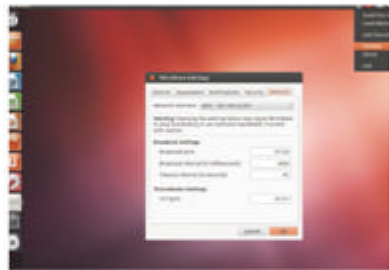
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PASSWORD FOR MARCH 2015 - bits&bytes

Featured Tools

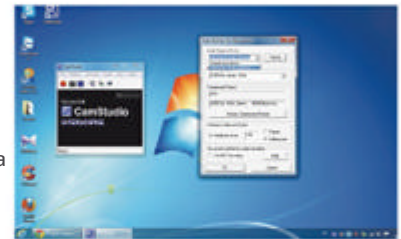
Nitroshare

Nitroshare is an application for Linux and Windows which can be used to easily send files to other PCs on the same local network. This software supports actions such as Drag and Drop, sending whole folders, file compression, Nautilus integration and more. This software requires little technical installation with a simple installation via the wizard, and you can soon run it after the program does its work.



Camstudio

Camstudio records all screen and audio activity on your computer and create industry-standard AVI video files. It also has a built-in SWF Producer which turns the AVI files into the ultra-efficient Streaming Flash Videos or SWFs. Some examples on the applications of this software are demo videos, videos for FAQ sessions, tutorial videos, technical support videos and information based videos.



MedialInfo

MedialInfo is a useful application that provides a unified display of the most relevant technical and tag data for videos and audio files. These data displays includes container type, video, audio, text and chapters. This software can read a wide variety of video and audio formats, view information in different formats, export information, and so much more.



Magic Lantern

Canon users should take a look at the Magic Lantern application which is a free add-on that runs from the SD/CF card and it adds a host of new features to the EOS cameras that were not included from the factory by Canon. It can provide enhancements to audio, exposure, live view overlays, movies, shoots and focusing.



Essentials

Our list of essentials consists of programs and software such as graphic drivers, browsers, compression software and even Cloud storage software that will improve a PC user's experience. The links on our website won't provide you with the files, instead it will lead you to the developers' official website, where you can find the right file for you.



March 2015

The Monthly Ten

Photoscape 3.7

Operating System: Win XP/ Vista/7/8

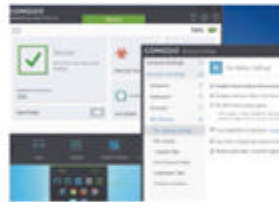
Image viewers, editors and GIF animators take note - Photoscape feature functions that can save you time and improve your workflow. With this software, you can read RAW formats from Adobe, Canon, Samsung or Sony, then convert them into JPEG format. It also features easy, one-click image processing functions.



Comodo Internet Security 8.0

Operating System: Win XP/Vista/7/8

Comodo Internet Security proves that you don't have to pay a premium to keep your PC safe. This application includes Antivirus Modules, firewalls, security browser, and even a Sandbox mode for your safety.



AunPlayer 1.1.0.990 Beta

Operating System: Win XP/Vista/7/8

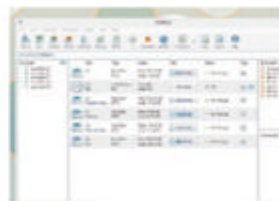
Presently, AunPlayer is one of the few free media players that can play back Blu-rays. It has a simple and functional menu whereby the functions are easily executed by clicking on the corresponding icons. It is also a media player.



DiskBoss 5.0.18

Operating System: Win XP/Vista/7/8

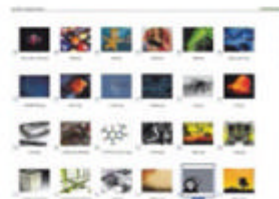
All Windows versions have one thing in common - the Explorer has not been modernised by developers over the years. With DiskBoss, you get a contemporary file manager for your system which comes with a variety of functions such as Duplicate Finder, or the analysis tool which helps you check your HDDs health status.



cPicture 3.4.4

Operating System: Win XP/Vista/7/8

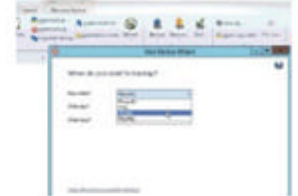
JPEG, RAW and many audio/video files can be managed easily by using the sleek cPicture tool, where the software will display the EXIF data of your image files. You can also alter this data with extra information as needed. Additionally, you would also be able to correct the red eye effect in your photos, trim your images and rotate them.



Fbackup

Operating System: Win XP/Vista/7/8

Creating backups on items such as photos, documents, or music are often underestimated by users in terms of the amount of work required. This freeware called Fbackup offers everything you need to protect your most important files from getting lost. You can back up on an external hard disk, a USB stick or a network drive using it.



Blaze

Operating System: Win XP/Vista/7/8

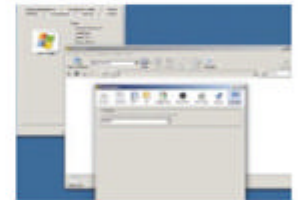
Blaze is a must-have application for aspiring DJs. This software allows you to place two songs onto the turntable and be a DJ by pressing Play. Apart from Delay and Phasers, you can provide perfect transitions between songs using the Crossfader.



Cyberduck for Win 4.6

Operating System: Win XP/Vista/7/8

If you if you need a tool to update your data securely, the open source tool Cyberduck is perfect for exchanging files via FTP Protocol. Apart from FTP, you can also connect to your Cloud storage with the tool for backing ups.



LicenseCrawler 1.44

Operating System: Win XP/Vista/7/8

There are times when you are reinstalling a program when you would need the serial numbers from the softwares on hand. With LicenseCrawler, the tool reads your system registry and finds out the license numbers registry, giving you the ability to save these important strings of alphanumeric values.



Immersive Explorer 1.1

Operating System: Win XP/Vista/7/8

This application is a substitute for Windows Explorer in the design of the modern UI and it supports not only the Aero-design and the .NET framework 4.5 but in its latest edition, it also has a comprehensive error correction feature that improves the stability of the tool in daily use.



Letters

Letter of the Month

What are Trade Shows?

Dear CHIP,

As mentioned in the last issue, there are many big trade events that are happening around the world (Maps, February 2015), but I am confused as which trade show does what? Can you give a short explanation on this?

Aliyah

Dear Aliyah,

Good question. While there are many trade shows yearly, the ones we listed in the last issue are the bigger ones, as they are where the bulk of the brands usually release and announce new products slated for consumers. It starts with CES, which stands for Consumer Electronics Show. Companies like to use CES as the launch for their high-end electronic devices. CeBIT in Berlin is the largest computer expo in the world, and focuses on the professional market. Computex in Taipei meanwhile is where all the component manufacturers go to for new product announcements, and MWC or Mobile World Congress, is where all the mobile guys gather and showcase their wares. Do check out April for our coverage of MWC yeah? (and February for CES!)



SDA10/16GB SD Card

Information Not Overload

Dear CHIP,

A long-time reader of the magazine here and been learning so much thanks to the news and articles you guys feature every month. Tech Spelunk is a particular favourite of mine, as you dissect the latest tech products and laid it out in an easy manner for readers like us to read. It is fun to see how these devices work from the inside out, and the technology behind it. Thank you for the section.

Charles

Dear Charles,

It's great to know that we have readers who are always looking forward to the content that put out every month. The Tech Spelunk section is one of our famous sections – and we totally with what you have said. It's always easy to just look at devices from the outside and say whether it's good or bad, but once you take a look underneath the skin, you will begin to appreciate the work that goes behind creating them.

Practise, Practise, Practise

Dear CHIP,

When I get the magazine every month, Practice Section will be my first stop. I have actually managed to learn many things through the section.

The contents of the section have grabbed my attention for me to get the components and software to try them out myself as most of them are awesome and useful. Especially for the photography tips – it has made me think outside the box for my next photos

I hope this section will continue to grow and become a big highlight for the magazine.

James Lew

Dear James,

Great to know that you enjoy reading and trying out our Practice section as much as we did writing it! We always think that getting the most out of computer does not necessarily mean spending big money on the best hardware and software, but sometimes digging in a bit deeper and finding the best solutions for your need for free!

It is our aim to have our readers learn and grow with every issue, and we are happy that we are on our way to achieve that target! Thank you for your support!

Write to us at letters@chip.com.my. Alternatively, log on to the forums at forum.chip.com.my and make yourself heard! The Letters page is an outlet for you to voice your views and opinions towards the magazine as well as general tech trends. Feedback sent to us may be edited for suitability without altering the intended point-of-view. The monthly winners for LoTM will be contacted for further details.

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Luke Au, Head of Product Marketing, Mobile Business, Samsung Malaysia Electronics (middle) with models showing the new Galaxy Note Edge during the launch



Go Benn Lee, Manager, Product Marketing, Mobile Division, Samsung Malaysia Electronics giving more details on the Edge Screen of the Samsung GALAXY Note Edge

Right on the Edge with Samsung

The latest addition to the Note family is finally in Malaysia, brandishing its sleek looks and unique features for all to see

First previewed and announced in IFA 2014 held in Berlin, the Samsung Galaxy Note Edge is now available in Malaysia for people who lives on the cutting edge of technology to purchase and own. A convergence of bleeding-edge technology and unique styling – the GALAXY Note Edge came about as a result of Samsung's pursue of getting the best innovation into the hands of consumers.


"With the GALAXY Note series of products, Samsung has been recognised as the creator of an entirely new market and culture for smartphones. We are proud to bring you and optimised and sophisticated GALAXY Note Edge that will be the perfect mobile companion for the tech savvy and style pioneers. Taking the GALAXY Note experience to the next level, the GALAXY Note Edge provides users with a new

way to access information, engage with their mobile device, and express their personality and tastes," said Lee Jui Siang, Vice President, Mobile, IT and Digital Imaging, Samsung Malaysia Electronics.

Featuring a host of new improvements and features that is unique to this model, the GALAXY Note Edge brings to the consumers another level of innovation into their hands. The most obvious feature on the phone is the curved screen on one edge of the phone. This curved screen (called the Edge screen) gives the GALAXY Note Edge a legs up in displaying information as it is a secondary screen to display additional information while the main screen is still in use.

Scrolling life feeds such as news, sports, Twitter, weather and more are currently available for the Edge screen, and more feeds and functionalities are available for download from the Samsung GALAXY App store.

With a 5.6 inch Quad+ HD Super AMOLED display behind the curving screen, the GALAXY Note Edge gives a bigger impact as it delivers crisper colours for images and videos being viewed on screen. Thanks to its speedy Qualcomm Snapdragon 805 processor, which is running at 2.7GHz, apps running on the Note Edge suffers virtually lag whenever it is needed the most.

The Galaxy Note Edge will be retailing at RM2,999 and available in "Charcoal Black" and "Frost White" from today onwards at all Samsung Experience Stores and Samsung authorised retailers. 

www.samsung.com/my



The new Galaxy Note Edge Note is available in two colours for the Malaysian market

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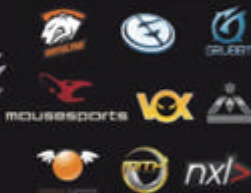


Virtus.Pro, the winner of EMS One Katowice CS:GO 2014 Championship

"Thanks to BenQ for the secret weapon- XL series monitors; practicing with these spectacular monitors allowed us to deliver the best performance..." Wiktor "TAZ" Wojtas, Virtus.Pro team captain.



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The Alien Invasion

Gaming gets more toys to play with as the latest Alienware 13, 15 and 17 gaming laptops were rolled out during the launch earlier this month

Dell Malaysia recently launched its latest line of gaming products under the Alienware brand which has been refreshed for the year 2015. These new devices are the Alienware 13, 15 and 17 gaming notebooks.

The Alienware 15 and 17 Windows laptops both come with the latest technologies from Intel and NVIDIA with both using the Intel i7 quad-core processors and NVIDIA GTX 980M graphics. In addition to that, these new Alienware devices incorporate the new Alienware Graphics Amplifier. Alienware continues their tradition of premium brand quality with the use of elements such as copper, aluminium and carbon-fiber composites for a rigid and performance focused mechanical design.


Also showcased during the launch was the Alienware 13 which made its debut last

year November, deemed as Alienware's thinnest laptop yet; inspired by Alienware's EPIC premium industrial design language. It features an Intel i5 Core processor, NVIDIA GeForce GTX 860M and 2GB dedicated GDDR5 as well as an optional 2560 x 1440 QHD resolution with optional touchscreen capabilities.

Announced in November 2014, the Alienware Graphic Amplifier was revealed here and it connects directly to the Alienware 13, 15 or 17, PCI Express Lanes allowing users to provide enough bandwidth for a desktop gaming experience. This device houses full length, dual-height graphic cards with up to 375 Watts of power and features four powered USB 2.0 ports.

Another gaming powerhouse that made an appearance during the launch was the Alienware Area-51 gaming desktop

which was made to go beyond Ultra HD resolutions and multi-monitor setups, while meeting the requirements of the most demanding gamers. It is equipped with the latest technologies that Intel and NVIDIA has to offer as well as being designed with the codename "Triad", which was designed to improve thermal management and ergonomics.

The last Alienware device that made an appearance was the Alienware X51 which is the smallest gaming desktop from Alienware and it is designed to provide an exciting 1080p high definition and 3D gaming experience for today's high end games. 

www.dell.com.my



The special "Triad" design on this desktop allows for ergonomic enhancements and better thermal management



From left: Christopher Choong, Consumer Brand Manager for South Asia, Dell, and David Ho, Consumer Country Manager for Malaysia & Singapore, Dell officiates the launch of the new Alienware products

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- Gamer First II
- Z97-Pro Gamer - H97-Pro Gamer - B85-Pro Gamer

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- Z97-Pro Gamer - H97-Pro Gamer

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Olympus Sets A High Bar

The titular OM-D series returns in the form of the OM-D E-M5 Mark II interchangeable lens camera from Olympus which uses some exciting new photography features

Olympus Imaging had earlier revealed the new OM-DE-M5 Mark II interchangeable lens camera which incorporates the world's most advanced 5-axis image stabilisation system.

This new device has 16 megapixels and it symbolises the freedom of photography through its 5-axis Image stabilisation system which has up to five shutter speed steps of shake compensation, cinematic quality with stabilized video recording and a reliable splash and dust-proofing system. It also includes a special Hi Res Shot mode that uses advanced sensor shifting technology which captures 40MP full-frame resolution quality photos.

As the world moves towards handheld photography being the main mode

of capture, the image stabilisation system has become the real basis of real world image quality, system mobility and imaging possibilities. The new E-M5 Mark II also features the Movie IS system which is engineered to provide pro cinema quality stability available only to professional gyro stabilised external rigs.

The E-M5 Mark II's superb video IS ability makes high-quality film making much easier to achieve for the video novice. Video is recorded at Full HD resolution with a choice of 24, 25, 30 and 60P frame rates. All-Intra and IPB recording modes can be selected with (approximate) maximum bitrates of 77Mbps and 52Mbps respectively. Sound monitoring is also possible when its

optional accessory grip is attached.

Simultaneously launched with the E-M5 Mark II is the weather-proof M.Zuiko 14-150mm f4.0-5.6 super zoom lens which when combined, makes the E-M5 Mark II become an easily carried, high performing camera ideal for travel and all-occasion photography device.

Together with the launch of this new camera, Olympus has also released a wide range of accessories and grips to help enhance the viability of this device.



www.olympus.com.my



The new OM-D E-M5 is shown on display here equipped with all the additional accessories



(From Left) My Yong Ngee Kap and Mr Toshiyuki Terada officiates the launch for the new Olympus OM-D E-M5

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ASUS Malaysia representatives showcasing the company's latest offerings

ASUS Dishes Out A Slate Of New Offerings

ASUS launches a wide range of new products just before the Year of the Goat which offers consumers value for money devices paired with efficient performance

ASUS launched three exciting new devices, namely the ASUS EeeBook X205, Fonepad 7 and Zenfone C, which are to cater to the middle-range and entry-level market. All these devices are set to be released in the first quarter of the year which would see some of the products are already on sale.

The first item shown was the ASUS EeeBook X205 which features an Intel quad-core processor for seamless multitasking performance while proving to be the ideal platform to work on for Microsoft Office, watching movies, web surfing and playing games. It is powered by Windows 8.1 with Bing which offers maximum application compatibility while offering users a convenient smartphone-centric experience with incorporated technologies such as the Connected Standby Mode which allows instant continuation of work from sleep mode and


allows users to enjoy an enhanced internet experience as they would be constantly connected to all their social apps and email even in standby mode.

The next device to be launched was the new ASUS Fonepad 7, a 7-inch phablet with full 3G and dual SIM phone functionality. The new Fonepad 7 is a refreshed model that is thinner and lighter than the previous Fonepad 7 (FE170CG). The new ASUS Fonepad 7 has a revamped design with a depth of only 7.9mm and weigh just 280g. This makes the new model 2.8mm thinner and 10g lighter than its predecessor. It also has a narrow, 9.24 bezel which reduces the Fonepad 7's overall width and thus makes it easy for one hand manoeuvrability.

It also comes equipped with an 8MP rear-facing autofocus camera designed for rich detailed photo capture of memorable events in life. It is also fitted with a large

f/2.4 aperture lens for increased camera performance with a variety of lighting conditions and it is the first ASUS phablet to fully incorporate a blue-glass optical filter which can reduce light scattering and flare to capture powerful images with precise colour. The new Fonepad 7 is also the first ASUS phablet to feature the Low Light mode which is an ASUS exclusive Pixelmaster camera technology which significantly improves camera performance in poor lighting areas

The new phablet also features a 7-inch IPS display with a wide 178 degree viewing angle and it also has ASUS TruVivid technology which reduces thickness and weight while displaying higher optical transparency than traditional touchscreens. Besides that, it also hold support for dual SIM with dual standby for 3G. This makes the device perfect for travel or business allowing users to have two phone lines on the new Fonepad 7 to ensure they can keep in touch anytime.

The last item on display was the new Zenfone C, which is a refreshed value for money smartphone which replaces the ZenFone 4. The Zenfone C has a crisp 4.5-inch display and a powerful 1.2GHz Intel Atom Z2520 processor with Quad Thread Hyper Threading Technology. It comes with two built in cameras which includes a 5MP rear camera to capture daily life photos and selfies. It weighs at just 149g and would be available in three colours such as Charcoal Black, Pearl White and Cherry Red. 

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BloodBorne brings players back to the Demon Souls Era and this time its with fast paced, zombie/demon slaying action

Blood And Order

Two new games rock the PS4 platform this year and they are The Order 1886, and BloodBorne, and we covered the launch to bring you a sneak preview

Last month, Sony Malaysia previewed two new anticipated PS4 titles which included The Order 1886 and BloodBorne. Both these games will be coming out for the PS4 later this year and each comes with their own unique gameplay style.

The Order 1886 is set in a Victorian era London where history has been altered and an order of knights was created to keep the world safe from half breed monsters which are a mix breed of man and animal. In this timeline, humanity finds hope in King Arthur and his Knights of the Round Table. The game brings a heavy cinematic feel to it that reminds us of the Last Of Us gameplay style with deep storytelling and action while also using

a third person shooter mode as its choice of combat. The graphics for this game is rich in steampunk lore as well as beautiful Victorian era garments on the civilians of London.

BloodBorne meanwhile is the spiritual successor of From Software's Demon Soul series which was one of the games that was made popular for their immensely tough gameplay. Most players would recognise the visuals from Dark Souls as well as the core gameplay and huge bosses that are present in this game. One of the unique gameplay mechanics in this game are the Chalice Dungeons whereby in multiplayer, you and your friends can raid a randomly generated dungeon

at your own pace. This game proves to be a faster paced, and more tactical game than the Dark Soul series while maintaining the same level of difficulty that the fans enjoy.

The Order 1886 and BloodBorne will be priced at RM179 respectively, while BloodBorne would also have a limited edition hunter pack priced at RM229 and a PS4 Bundle pack priced at RM1,749.



www.sony.com



Mr Arata Naito, from Sony Computer Entertainment Japan provides the game briefing for both these games

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SPECIAL OFFER



Laurence Si, Country Manager, Malaysia & Brunei heads the launch of the new VMware products



Matthew Hardman, Head of Strategic Business Development VMware, ASEAN gives the product briefing

The New Virtual Wave

VMware launches three new products for the cloud which comprises of the VMware Virtual San 6, vSphere Virtual Volumes and vSphere 6 Hybrid Cloud

Recently, VMware Malaysia has announced three new cloud based solutions for enterprise storage and the hybrid cloud. These new line-ups are the VMware Virtual San 6, vSphere Virtual Volumes and vSphere 6 Hybrid Cloud.

Designed for mass adoption of software-defined storage, the VMware Virtual San 6 introduces a significant amount of scalability and performance enhancements to the company's already stellar hypervisor converged storage solution, while VMware's vSphere Virtual Volumes are offering new levels of storage integration to make third

party arrays natively aware of virtual devices.

Along with the Virtual San 6, VMware has also launched the vSphere Virtual Volumes which is a set of APIs that enables a more granular interaction between storage and VMware vSphere at the individual virtual machine level. This would enable the Instant Clone Technology array to dynamically provision capacity and data services to each virtual machine thus resulting in a more agile, cost efficient and simpler way to manage storage infrastructure. VMware vSphere Virtual Volumes has received strong, widespread support

from VMware storage ecosystem and VMware has worked closely with five design partners such as Dell, EMC, HP, IBM, and NetApp, which were instrumental in providing direction for the technology.

The last item that was launched was the VMware vSphere 6 which is the latest addition to the industry defining virtualization solutions for the hybrid cloud and foundation for the software-defined data centre.

Customers are also able to optimise the performance, capacity and configuration of VMware vSphere 6 with the newly introduced VMware vSphere with Operations Management 6 which is an integrated platform and management solution. The solution delivers value from day one by helping customers proactively identify and re-mediate emerging performance and configuration issues as well as to reclaim any over-provisioned virtual machines along with the associated compute, memory and storage resources. 🇸🇬

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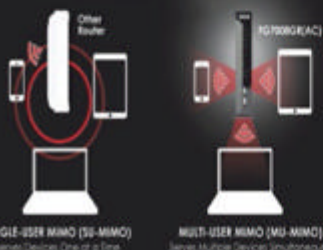
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WIDER WI-FI COVERAGE





The 12 developing teams and their mentors as well as the organisers all pose here for a successful launch program

Providing Fresh Beginnings

StartUpHouse is a program initiated by Pixarworks Creative Sdn Bhd to help local app creators produce their web applications and give them the resources required to make them happen

Earlier this month, StartUpHouse was officially launched, with the introduction of five selected teams which consisted of 12 individuals who were given the opportunity to do what they are passionate about which is to build a web application that could very well change our lives. With all expenses paid and with the aid of industry experts, StartUpHouse is the brainchild of Pixaworks Creative Sdn Bhd.

12 young designers and developers are brought together into a house set up in Cyber heights Villa, Cyberjaya, where all they do is live, breathe, code and design. With this intense form of focus, they are required to complete five web applications which meets the "Minimum Viable Product" (MVP) standard within three months, which eventually leads to an exclusive showcase demonstration with

investors. That is the type of motivation that StartUpHouse aims to achieve between the periods of January to April this year.

At the event, we met with some of the developers for a detailed look at their application that is under development. The first developer we met was Haimi Edzwan Hashim and Mazlan Paiman with their app called TransitWatch. This app is essentially a platform for long distance bus travels which allows commuters to track their love ones via real time. This application lets you know in real time the speed the bus is traveling at and the duration of time the bus has been over speeding. It also tracks and compares the different bus companies to show which bus has the best record of safety shown on their app. This application would prove handy for low to mid income groups who frequently travel on buses

for long distance trips as well as students from different states. The pilot for this app begins during the Chinese New Year season with a predicted official launch by June with the hopes of government agencies taking notice at this application.

The next app developers we had the chance to talk to is Yong Shen Feng and Dean Nazmuddin over their unique application called Jioness. Essentially, Jioness is a mix of Tinder and restaurant locating applications. Users would set up a venue, event time and set the number of people allowed to enter the slots all in order to find people to eat with during meals. The concept of this app is to avoid eating alone by inviting people you have never met to come and eat with you.

The last team developers we met up was the team that made FoodBits, a digital cookbook that provides e-recommendations based on dietary preferences, cuisine preferences and budget. The application will allow you to sync with local grocers on the availability of ingredients listed on your favorite recipes, and allow you to visit that grocer to get the required ingredients. The application has already been launched for 10 days and during that period of time, it has received over 1,000 downloads thus far. 🇲🇾

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A Smart Cabinet for Smart Servers

Emerson unveils new server solutions in Malaysia


Emerson Network Power recently unveiled the availability of the SmartCabinet in Malaysia, a server solution designed for small computer rooms with limited floor space, combining critical components needed to keep the IT infrastructure running efficiently, while improving the speed of system development.

The SmartCabinet is a single rack server that meets the requirements of a data centre by combining power protection, thermal management, power distribution unit and infrastructure management and monitoring in a simple packaged solution. It is pre-configured, pre-installed and factory-tested to ensure system compatibility and is ready to use from day one. The SmartCabinet eliminates the need to build complex computer rooms which improves the speed of system deployment compared to the traditional method.

"Malaysia's business organizations are faced with continued data explosion, which put pressure on their data centre's physical infrastructure. Without proper solutions in place, these high density compute loads can lead to overheating and eventually costly shutdowns. Intelligent, integrated infrastructures such as the SmartCabinet addresses these challenges while providing

significant gains in energy efficiency, space utilization and bottom-line costs," said Hitesh Prajapati, senior director, Strategic Accounts, Emerson Network Power in Asia and country manager, Emerson Network Power in Malaysia.

The SmartCabinet solution is equipped with Emerson's advanced online double conversion rack-mounted uninterruptible power supply (UPS), providing protection within the cabinet itself to maintain sustainable and stable operations. On top of that, it also has a built-in rack-mounted air-conditioning system allowing cold and hot air to circulate within the rack for better temperature and humidity control. The integrated thermal management solution meanwhile provides protection against dust, reducing the risk of equipment failure, thus expanding the lifetime of the devices inside the cabinet.

On top of that, the SmartCabinet solution provides efficient foundation for IT infrastructures, features improved heat and airflow management through optimal rack perforation, simple management, access and control of hardware, as well as visibility of critical infrastructure in a local office and remote locations. 

www.emersonnetworkpower.com/en-ASIA/



Hitesh Prajapati, senior director, Strategic Accounts, Emerson Network Power in Asia and Country Manager, Emerson Network Power in Malaysia with the Emerson SmartCabinet server solution





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ASUS



Samsung Forum 2015

Products and solutions go hand in hand in this year's regional showcase *By Nazrin Zain*

It's that time of the year again as Samsung unveil a bevy of new products from their wide array of consumer and business markets. This time around however, Samsung is also looking to push their content and services business and leverage the advantages their own products have provided them.

"Samsung has continuously

demonstrated a strong legacy of innovation, and this year is no exception" said Yong Sung Jeon, President and CEO of Samsung Electronics South East Asia & Oceania. "I am thrilled with the new line-up of products we're bringing to Southeast Asia and am confident it will meet people's needs in the region."

Making Home Entertainment Sexy Again

The first product that was unveiled on the stage is Samsung's brand new 88 inch JS9500 Super Ultra High Definition (SUHD) TV. The JS9500 is Samsung's latest flagship television, and its SUHDTV moniker is not just for show. JS9500's re-mastering engine analyses the brightness of images to reduce power consumption, while producing stunning contrast levels that is two and a half times brighter than conventional Ultra High Definition (UHD) TVs out there in the market right now.

Using an LED panel made with nano-crystal technology, it transmits different

colours of light depending on the size of the crystal to produce the highest colour purity and light efficiency. Not only does the new LED technology allow the Samsung SUHDTV to produce more vibrant colours (up to 64 times more than conventional televisions), it also minimises power consumption, and has an elevated level of brightness that is 2.5 times brighter than that of other UHDTVs.

The newly-announced Samsung SUHDTV JS9500 features a chamfered bezel design, which adds more depth to the TV screen and makes the display look like a piece of art when mounted onto walls.

The new SUHDTV models, ranging from 55 inches up to 88 inches will eventually make their way here to Malaysia sometime later this year, including the JS9500, JS9000 and JS8500 SUHDTVs, so if you're in the market to upgrade your televisions soon, it's definitely recommended that you wait for them to be available locally.

Samsung hasn't forgotten about audio either as they announced brand new audio



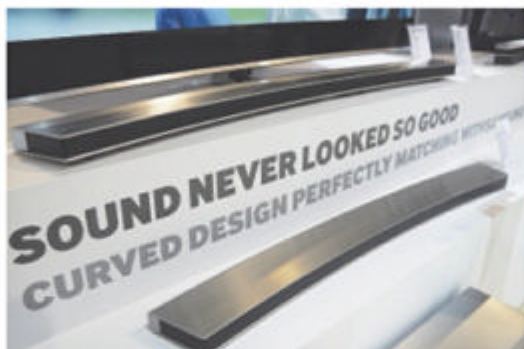
YS Jeon, President and CEO of Samsung Electronics Southeast Asia and Oceania kicking things off at the Samsung Forum 2015



The new Samsung SUHDTV comes in a variety of sizes, and will make their way to Malaysian shores sooner than you think



Samsung is also introducing new curved UHD monitors for PC users



What is great video if you don't have the audio to go with it? These Samsung Curved Sound Bars is a 9.1 surround sound audio setup!

products, including the WAM7500/6500 omnidirectional speakers that provides a 360 degree sound experience thanks to Samsung's proprietary ring radiator technology.

Developed in Samsung's new state-of-the-art Audio Lab in California, the WAM7500/6500 speakers are designed with style and elegance to harmonize any home interior. The speakers provide rich-bodied sound, and unlike conventional speakers that project sound in a single direction, these fill the entire room with equal and balanced sound.

Not only that, Samsung has also unveiled the new Curved Soundbar 8500 series which complements Samsung's own Curved LED UHD TV models, designed to fit TVs ranging from the 48 to 78 inch models. This premium audio solution offers 9.1 channel audio and connects wirelessly to your TV for a seamless audio and video experience.

With its patented Multi-Air Gap speaker unit at its subwoofer, the Soundbar features deeper bass than conventional audio offerings. It also allows users to stream music through its multi-room functionality, and has a wireless

connection to the TV through TV SoundConnect via Bluetooth.

Televisions and speakers aren't the only things that have received the curved treatment from Samsung. The company also unveiled new curved PC monitors, which the Korean tech giants claims provides a comfortable viewing experience with screens that closely match the natural curve of the human eye. This line-up includes the flagship 34 inch Samsung SE790C, which has a cinematic 21:9 aspect ratio, as well as the 27 inch SD590C and SE510C respectively.

Not only does the Samsung SE790C feature an optimised curved display, it also has an Ultra Wide QHD display and superior contrast ratio. The monitor was recognised with the "Award for Samsung's Curved Monitor Validation with Eye Comfort" from TÜV Rheinland, a leading international certification organization, following a rigorous performance evaluation and validation process. The validation process evaluated the monitor's colour presentation and uniformity, wide-viewing angle and flicker-free operation.

Going Strong on the Camera Front

Despite launching a number of gimmicky camera devices over the past several years, the launch of the NX1 mirrorless camera late last year signalled Samsung's serious entry into the digital camera market. It was hailed as one of Samsung's best shooters, and the company has all the intent in the world to make more of the same, which is what they did with the announcement of the Samsung NX500.

"We recognize the sentimental value of a photograph in people's lives and being able to capture and share the perfect moment from wherever they are. That is why Samsung has built a camera suitable for everyday photographers," said Sangmoo Kim, Senior Vice President of IT & Mobile Communication at Samsung Electronics.

Unlike the NX1 however, the NX500 features a more compact design, which fits the profile of more laid-back, casual photographers - whilst retaining a lot of the features and functions that were first made available on the NX1.

The NX500 features a 28MP Back Side Illumination (BSI) APS-C sensor, which is not only capable of capturing detailed images in low-light conditions, but also record video in 4K, utilising BSI APS-C sensors, which provides more flexibility when it comes to recording movies.

Equipped with a DRiMEv processor, the NX500 offers excellent colour reproduction, better noise reduction and improved image quality that more serious photographers would love to have in their compacts. Coupled with a Hybrid AF sensor, users can capture the briefest of moments by simply focusing and shooting instantly.

For video junkies, the NX500 has a built-in HEVC H.265 codec engine, which is capable of compressing high quality videos to half the size and bitrate of H.264 without losing any quality. Building on this, the NX500 also has an Interval Capture mode that can convert high-resolution images into a UHD time-lapse video directly on the camera.

Much like many cameras that have been launched in the market recently, the NX500 also has a display that can tilt and flip up, great if you're into taking selfies and such.



Is the Samsung NX1 too bulky for your liking? Fret not as the Samsung NX500 fulfils your portable needs, whilst retaining the same image quality as the higher-end camera



The Samsung NX500 not only takes good photos, but it can also record 4K videos

It also comes equipped with NFC, WiFi and Bluetooth functionality for all your wireless connectivity needs.

The Samsung NX500 will reportedly be available sometime in the next few months, and will come in three colour variants, including Black, White and Brown.

Early Adopters

Unfortunately, there isn't anything new from the mobile side of the business that was shown at the Samsung Forum 2015. The Samsung GALAXY A3 and A5 smartphones were launched in Malaysia not too long ago, while the Samsung GALAXY A7 was quietly introduced to the market without too much fanfare.

The devices feature a 5MP front facing camera to ensure the perfect selfie, and offer original features like an animated GIF setting. The devices also support LTE category 4 for quick and easy photo and video uploads on any social network. With a slim metal unibody design in a range of colours and sizes, the new devices underscore Samsung's commitment to creating sleek, easy-to-use styles.

Forming Services Around Products

Besides announcements of products and devices, it seems that Samsung is also starting to roll out a number of new services and updating existing ones to increase value-added content for customers – both old and new.

With these announcements, it is clear that Samsung wants to target the South East Asia market, and to that end, they've done quite a lot of research on the countries on these regions, as they understand that different countries all consume media differently.

In order for them to effectively roll out these services, they also need to work around different use-case scenarios as the same service will undoubtedly work differently across Samsung's portfolio of

devices that include smartphones, tablets and Smart TVs.

Samsung Life

Samsung smartphone and tablet owners will most definitely be familiar with the Samsung Life service. As the company puts it, it is the passport to privileges for Samsung smart device owners, providing users with a variety of limited time special deals and discounts. The best part about it is that the privileges are all sourced locally, so you will always get the most relevant deals regardless of your location.

Samsung aims to improve on the Samsung Life platform by adding a few things that they're sure its users would appreciate. First of which is the addition of editorial content, which aims to provide Samsung news and tips to device users that will help users get more out of their devices, besides just using them as a phone and media consumption device.

The company also will add a new CRM platform that will record and memorise customers' interests and needs, based on

the websites they visit, and the kinds of deals that they claim, so that the Samsung Life platform can push more relevant deals to the users.

With availability in five different countries around the SEA region, including Malaysia, Singapore, Indonesia, Thailand and the Philippines, and 3.0 million downloads in total, Samsung is in great shape to push these features live soon.

Not only that, Samsung also has plans to add a Gold Tier to the Samsung Life platform. According to Nicholas Wodtke, Vice President of Media Solutions Centre, Samsung Electronics SEA and Oceania, there will be no additional fee to access the Gold Tier, but customers will have to purchase the flagship and high-end mobile devices in order to be eligible for this tier.

Some privileges for the Gold Tier users includes 24/7 customer care via chat, warranty extensions and more. It is estimated that the Gold Tier will be rolled out around April in Malaysia, but Nicholas was not able to elaborate further beyond that.

Samsung Milk

Samsung Milk is touted to be a major competitor to music streaming service Spotify, but features a much more intuitive way to discover music new and old. Milk uses what Samsung calls a Dial UI, which allows you to fine tune your music



Samsung didn't show much from the mobile side of things, but we recently discovered that the Samsung GALAXY A7 was officially launched after the A3 and A5 in Malaysia



Not only does the Samsung WAM7500 omnidirectional speakers provide excellent audio, it's an elegant centrepiece as well

preferences based on 18 genres of music and over 200 music stations.

Much like Spotify, Milk also provides users the option to create their own playlist of songs, and does this in a very intuitive way - by using fine tuning bars to help you tune your music preferences, this provides users with the appropriate artist and song suggestions.

Milk also has a similar subscription model, offering both free and premium accounts, and the latter costs \$3.99 (~RM14.40). The premium account ensures that no ads will be played and also provide users with higher bitrate streams.

Both free and premium users will also be able to access offline mode, where Milk will download your playlist and allow you to enjoy your music even when an Internet connection is not available.

The service was first launched in Australia not too long ago, but Nicholas has ensured us that the service will also be rolled out in the region throughout the year.

Circo

According to Samsung, at any given time, 67 percent of smart device users in Southeast Asia have at least one game installed on their devices, and a majority of these users play mobile games on an almost consistent basis.

Samsung's Circo is something akin to a mobile advertising platform that allows Samsung smartphone and tablet owners

to play their games and actually benefit from it. The service currently has 20 curated games on the platform, including titles from well-known developers such as Halfbrick and Ubisoft.

Samsung SportsFlow

A majority of Malaysians, and Southeast Asians in general are into some sort of sport, in one way or another. With Samsung SportsFlow, the company has devised a way to let you get your fix of sports news on the go, at the tip of your hands. The service collates news from various sources, and updates it all in one convenient app.

SportsFlow also lets you decide which news you want to appear in your Sports Stream, so that it only pushes content that you are interested in. So if you're into football, basketball and cycling, you can set it in such a way that only content relevant to these three sports are shown.

On top of that, Samsung has also ensured that a majority of the content that is pushed via the app is localised, for easy reading. Samsung has partnerships with over 170 sports media outlets including BBC, ESPN and Yahoo! Sports, amongst others.

Another big announcement is that Samsung also has Premier League Pass available in New Zealand and Fox Sports in Philippines, which allows these users to watch live content on their smart devices. As of this moment, there are currently no plans to introduce these content services to other Southeast Asia nations.

Samsung Seasons

Besides Astro and HyppTV, Malaysia doesn't really have that many options when it comes to digital TV packages such as Netflix and Hulu. Samsung Smart TV customers in Malaysia however have been privy to a service called Samsung Seasons that was launched a few months back, which allows them to pay for TV shows that they would like to watch.

Encompassing both local and international content, Seasons charges roughly around US\$6.00 (~RM22) for a season of shows, which customers can then watch for a whole month. Not only that, they can also gift six other friends TV episodes as well if they so happen to own a Samsung Smart TV.

Currently, this service is available in Malaysia and Philippines, with roll-out to

other Southeast Asia countries expected to happen throughout the year. Nicholas also mentioned that the Samsung Seasons service now not only works with Samsung Smart TVs, but Samsung smartphones and tablets as well.

Samsung Kids Time

Samsung Kids Time is a godsend for tech-savvy parents, as it is a service that both provides children with educational and entertainment apps for their mobile device, but also help in security by limiting the features that is accessible by the child on their tablet.

As mentioned before, the Kids Time app limits which apps they can access, and not only that, you can also set a timer as to how long they can use the tablet for. Once the timer runs out, you will need to enter a pre-set password to be able to access the apps on Kids Time again. There is also a dashboard which shows you how much time the kids spend on the apps, which is great if you're keeping track.

Products and Services Go Hand in Hand

Samsung is synonymous for their mobile devices - so it was quite disappointing to see that they didn't really bring anything new to the table in regards to devices. What Samsung did have on showcase, especially the new SUHDTVs, sound systems and cameras instead somewhat made up for it.

As SEA continues to grow financially and technologically, customer needs will also evolve, and it's great to see Samsung understand that services, be they online or offline are just as important as the devices that they're bringing in to the region. www.samsung.com/my/home




Nicholas Wodtke, Vice President of Media Solutions Centre, Samsung Electronics, Southeast Asia and Oceania introducing the various services Samsung customers from around the region can expect to see this year

The Flaming Fox Now Lets You Chat


Firefox 34 and the beta version of Firefox 35 has already been completed and with that, the Mozilla Foundation has provided some interesting new features - one

of them is the Firefox Hello, which is a chat tool for text, voice and video communications integrated in the browser. You would be able to create a conversation integrated in the browser with just a single click. Chat partners can join in the conversation via a link that gets separately generated for them. Users would also not require Firefox for this feature as it is integrated using the Open source WebRTC technology, which is also found in Chrome and Opera. Thus far the functions offered by the video chat are still in its infant stages as they will continue to be improved on future browser editions. The chat is available on Firefox 35. Users can use this function by downloading the 35 beta or activating the version 34 using the console command `about:config` by setting the "loop throttled" parameter to false.

Besides, the chat function, users can also choose between five different themes to give their browser a look which ranges from matt grey to multi-coloured. Mac users can also benefit from the integrated h.264 codec support. Additionally, the browser's security has improved with the addition of the disputed SSL3 encryption technology being removed. A new technology called Public Key Pinning also makes it difficult for trouble makers to pose as Facebook, Twitter or Dropbox services. 




The Tiny PCstick

Orbsmart may have developed one of the smallest PC in the world with the AW-01, which comes at the same size as a USB stick but can be inserted into a HDMI port. This means that users can now turn their HDMI monitors into a full-fledged PC that comes with two operating systems which are Windows 8.1 and Android 4.4. Its innards is a copy of a mobile device - there is an Intel Bay Trail processor inside with four cores and 1.8GHz with up to 2 GB RAM and 32GB Flash memory. This device can also be upgraded to 64GB through a microSD expansion. Devices can also connect to it via HDMI, microUSB and USB 2.0 whereas the stick also provides WLAN and Bluetooth 4.0. Additionally, connected monitors are supported with full HD resolution. 




The Phone with Two Faces

The new Yotaphone 2 makes no waste of its devices screen placement as the developers of Yota Devices attached where a back panel should be. This screen is actually an E-ink display measuring in at 4.7 inches with 960 x 540 pixels and it is mostly used on displaying texts, flight tickets and mails. This digital ink makes it more comfortable for viewing under bright conditions while saving a lot more power as the display only changes when the content changes as well. On its normal display, it features a 5-inch full HD display and a camera that has 2Mp on the front and 8MP on the back. The device runs on Qualcomm quad core processor while equipped with 2GB RAM and 32GB internal storage. Its 2550 battery cannot be removed but it does not generate a lot of heat even with the dual display. 



Game Streaming With Steam

Valve has begun its own streaming service called Steam Broadcasting. This service is going to be available during a beta phase and is aimed at providing a competitor to the popular streaming service Twitch. The streams can be viewed via the Steam client as well as browsers such as Chrome and Safari. These streams can be viewed publicly or restricted to selected friends. 




The Power-saving HP Folio 1020

Fanless operation and noise free performance is what notebooks with Intel's super power-saving CPU variant Core M offers. There are already devices that utilize this technology and one example is the business notebook Elitebook Folio 1020 from HP. The device weighs in at 1.2 kilograms and it also comes with a brand new feature which the notebook owners of the future would get used to, and that is its 12.5-inch display. Based on the design, it either has a full HD or Quad HD resolution while also providing users with the option of a touchscreen. The device is powered with an energy efficient dual core processor of up to 1.2 GHz, plus 8GB DDR3 RAM and an SSD that has up to 256 GB storage space with either Windows 8.1, Windows 7 or Ubuntu Linux pre-installed. The battery is predicted to last up to nine hours. Business minded users can enjoy the benefits of a HD webcam, 16mm thickness, fingerprint sensor, remote maintenance, mobile radio modems and numerous security functions such as remote deletion. 



A Glimpse at Nexus 6

Google's mobile devices have often provided solid hardware at a reasonable price and has thus appealed to a target group which expands daily, however the Nexus 6 is the odd one out as it is bulky, heavy and predictably expensive. It has a huge 6-inch display with storage of up to 64 GB while offering every connectivity options available ranging from Bluetooth to WLAN, to LTE. It also comes with the latest Android 5.0 and has a battery life of 10 hours for calls and more than seven hours for online usage. It also comes with a 13MP camera. 





Intel's New Roadmap

Intel chief Brian Kizanich recently presented a new roadmap for the next upcoming Intel processors. The roadmap shows that the production of CPUs using 14 nanometres construction method has posed more problems than before. However, these issues have been resolved and as such Intel does not expect any further delays in the production of future CPU generations. The plan are as follows: the Broadwell processors, which are the 5th generation core processors are to be launched in the middle of the year, while the power saving Intel Core M is already available, followed by notebook models Core U and H - while CPUs for desktops will be coming in on the second half of the year with the sixth generation called Skylake. This new processor would be introduced in a staggering manner much like the Broadwell. This means that the trend would be the power-saving M models being delivered before the more power consuming versions. Cheaper notebooks will receive the Braswell design in the middle of the year. This design is based on the mobile Atom architecture yet it is installed in CPUs with a structural width of 14nm. It has been designed specifically for low-priced notebooks, Chromebook and is the successor for the current Bay-Trail architecture. Smartphones would not receive any new processors before the year 2016. The generation succeeding the less popular Moorefield models would be called Broxton. 🇨🇦

Facebook Experiments

Facebook is attempting to release a new standalone application which is named Groups which displays and manages group chats on Facebook, as well as the app called Rooms, which allows anonymous users to meet and greet just like the initial days of the Internet. Facebook states that the strategy of starting numerous individual apps have been implanted in tandem with user requests. 🇨🇦

A New Outlook

After purchasing the Acomplia app, Microsoft intends to revamp its mobile Outlook software. Acomplia specializes in the logical sorting of incoming mail on iOS and Android as well as facilitate the sending of file attachments, which are the two features which were below average in the mobile variant of the Outlook email service. However, it will take months to integrate the knowhow of Acomplia developers in Outlook. This formerly independent app continues to be available for free in the App store and Play store. 🇨🇦

New Android Has the Bug

As of now, there are very few Android devices that run on the new Android 5.0 Lollipop and many have considered this better off for now as the new OS has plenty of bugs that has yet to be rectified. Some of these bugs causes your camera to start sporadically, turning off your flashlight after a while then stops functioning completely, apps that close and start randomly. Your best bet is to wait for Android 5.1 which should not take too long to release. 🇨🇦

Mobile Internet Gets Cheaper With the Nokia 215




Microsoft Devices Group has recently launched the Nokia 215 which is the most affordable Internet ready phone which is designed to connect and introduce first time mobile buyers to the internet and help them enjoy new digital experiences. This device would be available in Dual SIM and it can expand the reach of Microsoft services at a more affordable price. This device would be priced very competitively thus making it readily available for those who want to access popular Web content and digital services.


"The introduction of the internet ready Nokia 215 in Malaysia gives us the opportunity to reach more Malaysians to get online and stay connected," said Bruce Howe, General Manager, Microsoft Mobile Devices Sales for Malaysia, Singapore, and Brunei "Built to last, this budget-friendly device is perfect for both, first-time mobile phone buyers and those wanting a second phone."




Apple Delves Into VR

Apple is currently looking for employees for a virtual reality team, which should "revolutionise user experience", to quote the job ad. Apple already has the relevant patents since 2006, but the development of its goggles seems to be in a very early stage. As a result, it is unknown whether such goggles would ever appear in the market, or would the idea be scrapped eventually. But in the past, job ads in the fashion section had pointed towards the Apple Watch. 

Windows Phone Gets the Threema

After a long wait, the encrypted smartphone messenger Threema is finally available on devices which use Windows Phone 8 OS. The messenger can also be used without the need to enter any personal details, while your identity can be verified through a three-level traffic light system that your friends can verify to know who is on the other side. 

Happy 20th Birthday Playstation

The famous Playstation is 20 years old and Sony celebrated this event with a Playstation 4 made in the colour of the first PlayStation design. This model is limited to only 12,300 pieces and it comes with a dual shock controller, a camera and a vertical stand while everything else was just like it was back in the launch of Sony's first console that was released on 3rd December 1994 in Japan and was sold over 104 million times. The 12,300 units were sold within minutes. 



Data Theft Of The Month

7 MILLION PASSWORDS: MILLIONS OF PASSWORDS MISSING FROM INTERNET GIANTS

A hacker group calling themselves Derp Trolling has recently stolen millions of online usernames and passwords from popular websites and services. As proof, they have published 5,500 data records, which includes usernames, passwords and credit card records. The stolen information reportedly came from PlayStation Network, Facebook, Twitter and Windows Live. When contacted, these companies all denied having their servers breached and their data stolen. As a precaution however, it is recommended that you change your passwords to ensure that their accounts remain secure.

23,000 SERVERS: WORDPRESS HACKED

A backdoor called CryptoPHP has infected more than 23,000 Wordpress servers so far. Manipulated themes and plug-ins for popular content management systems such as Drupal, Wordpress or Joomla are its gateways. CryptoPHP then makes the infected servers a part of the botnet. It was discovered by the security firm Fox-IT, which has already turned off a majority of the control servers. One can check one's servers for a CryptoPHP attack with the help of a Fox-IT script.

50 COMPANIES, 16 COUNTRIES: ATTACK FROM IRAN

The security firm Cylane has exposed a massive hacker attack under the name "Operation Cleaver". Iranian hackers have allegedly attacked 50 company networks in 16 countries, including airports and authorities. Login data and confidential information about the companies were also stolen.



A special scanning tool (right) tracks the modularly designed super Trojan (left).

Security Agencies Spy On Common Folk with Super Trojans


Symantec exposes a super Trojan used by the secret service

Symantec has recently uncovered a super Trojan called the Regin, which is supposedly to have been used by many secret service agencies in the West without anyone knowing about it. The extraordinary thing about Regin is how it camouflages itself to make it look like a harmless adware.

Whilst it is possible to track parts of it and stop it from accessing and sending data, experts have found it difficult to explain what exactly this Trojan does to a computer system. Symantec has reason to believe that there are many more unidentified variants of the Regin Trojan out there right now, as parts of the Trojan that have been discovered affect both private and business users.

Recent developments have also

revealed that Regin has zeroed in on telecommunications operators, airline companies and research facilities. Regin has a modular design and is able to produce screenshots on infected systems, steal passwords and even record data traffic, which is then saved in encrypted containers.

There is not much that is known about the creators of the Regin Trojan, but since many of the infected systems are located in Russia, it is possible that the NSA or its British counterpart, the GCHQ is behind it. The Regin versions known so far can be detected by most virus scanners. ReginScanner is a free identification tool, which recognises the files created by Regin from its special header information. 

The Great Cyber Robbery

Up to a billion dollars feared stolen in biggest online bank heist yet

Kaspersky Lab, Interpol, Europol and a number of authorities from various countries around the world banded together to uncover the plot behind one of the most unprecedented robbery cases in modern history.

Up to one billion American dollars was stolen in about two years from financial institutions worldwide. The experts report that responsibility for the robbery rests with a multinational gang of cybercriminals from Russia, Ukraine and other parts of Europe, as well as from China.

The group calls itself Carbanak, a cyber-criminal gang responsible for a large number of cyber-robberies that have happened over the past couple of years. Since 2013, the criminals have attempted to attack up to 100 banks, e-payment systems and other financial institutions in around 30 countries.

According to Kaspersky Lab data, the Carbanak targets included financial organizations in Russia, USA, Germany, China, Ukraine, Canada, Hong Kong, Taiwan, Romania, France, Spain, Norway, India, the UK, Poland, Pakistan, Nepal, Morocco, Iceland, Ireland, Czech Republic, Switzerland, Brazil, Bulgaria, and Australia.

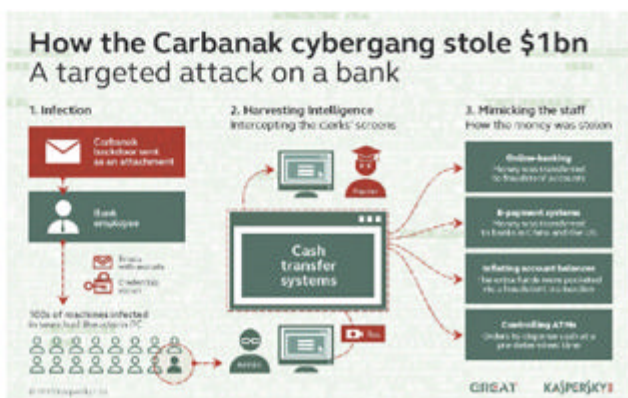
It is estimated that the largest sums were grabbed by hacking into banks and stealing up to ten million dollars in each

raid. On average, each bank robbery took between two and four months, from infecting the first computer at the bank's corporate network to making off with the stolen money.

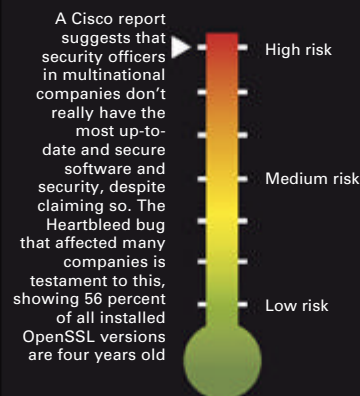
The cybercriminals began by gaining entry into an employee's computer through spear phishing, infecting the victim with the Carbanak malware. They were then able to jump into the internal network and track down administrators' computers for video surveillance. This allowed them to see and record everything that happened on the screens of staff who serviced the cash transfer systems. In this way the fraudsters got to know every last detail of the bank clerks' work and were able to mimic staff activity in order to transfer money and cash out.

"These attacks again underline the fact that criminals will exploit any vulnerability in any system. It also highlights the fact that no sector can consider itself immune to attack and must constantly address their security procedures. Identifying new trends in cybercrime is one of the key areas where INTERPOL works with Kaspersky Lab in order to help both the public and private sectors better protect themselves from these evolving threats," said Sanjay Virmani, Director of the INTERPOL Digital Crime Centre.

www.kaspersky.com

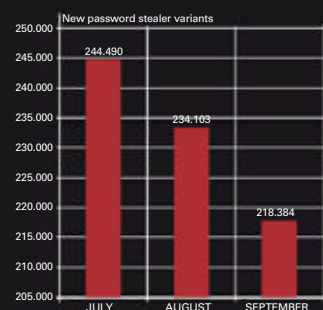


Danger Barometer



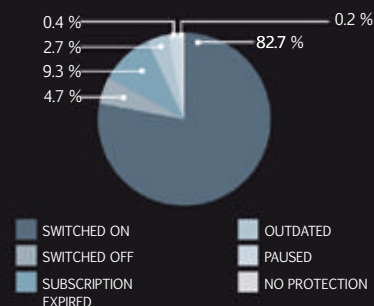
Attacks on financial data are dwindling

Attacks on PCs using special viruses that were targeted at account and credit card data have decreased.



Virus scanner status on PCs

Microsoft has evaluated the status of virus scanners on Windows installations with Windows 8 and Windows 8.1.



Number of the Month:

US\$ 1,000,000,000

The estimated amount of money stolen from banks across the world by the Carbanak crew



Albert Chai, Country Manager for Cisco in Malaysia



these exploits become more common, they get patched out by security companies quite quickly. In order to circumvent these, hackers will use less commonly known exploits, and switch them around quite often to avoid being found out as a signature way to hack into PCs and servers.

Java exploits have gone down over the years, but hackers with the know-how can still leverage on their knowledge and couple it with other insecure platforms like Flash and Javascript, and share the exploits between these two to make it difficult for security experts to reverse-engineer and fix.

In 2014, man-in-the-middle attacks also went big, as infected user computers unknowingly became botnets for hackers. Users downloading from compromised sites contributed to a 228% increase in Silverlight attacks, mainly through Fiesta, Angler and Rig exploit kits, along with a 250% increase in spam and malvertising exploits. However, this number still low in volume of attacks when measured against PDF, Java & Flash.

Results from the Cisco Security Capabilities Benchmark Study, which surveyed Chief Information Security Officers (CISOs) and Security Operations (SecOps) executives at 1700 companies in nine countries reveals a widening gap in defender perceptions of their likely security capabilities. Specifically, the study indicates that 75 percent of CISOs see their security tools as very or extremely effective. However, less than 50 percent of respondents use standard tools such as patching and configuration to help prevent security breaches and ensure that they are running the latest versions. Heartbleed was the landmark vulnerability last year, yet 56 percent of all installed OpenSSL versions are over four years old. That is a strong indicator that security teams are not patching. 

Wakeup Call For Companies Needed Over Their Online Security

Cisco annual security report unveils jarring gulf between perception and reality of cybersecurity awareness

Cisco recently released its Cisco 2015 Annual Security Report that examines both threat intelligence and cybersecurity trends. The report shows that companies need to adopt an “all hands on deck” approach in order to defend against cyber-attacks as hackers have been getting better at taking advantage of gaps in security to avoid detection and concealing malicious activities. These issues are further complicated by the geopolitical motivations of the attackers and conflicting requirements imposed by local laws with respect to data sovereignty, data localization and encryption.

According to the report, there are several methods these hackers use to expand their attacks in ways that make it more difficult to detect and analyse. Three of these methods have proven to be quite efficient in allowing hackers to do their dirty deeds, including: Snowshoe Spam, Web Exploits and malicious combinations.

Snowshoe Spam is a preferred method by many hackers, as they will send low volumes of spam mails from a large pool of IPs to avoid detection, making it easy for the hacker to leverage compromised accounts in multiple ways.

There are a wide variety of web exploits out there on the internet, but as



Developing and Launching a Technology Startup



While many facets of the internet still remain free of tax (and rightly so) there are many ways a governing body can actually impose tax on to things such as e-commerce businesses

By Edwin Lee Yong Cieh

A practising lawyer specialising in telecommunications, media & technology law, Edwin is in a constant effort to educate users on the many legal happenings in the IT world

So you have an innovative idea and you are very confident that your idea is of a revolutionary nature that will change the world and become the next big thing. You think it is about time to turn that idea into reality. So you quit your job and start a company.

Launching a startup requires far more than just a good idea. You need to come up with a business model, write a business plan, design your sales and marketing strategies, hire people, make good use of your assets as well as look for funding to finance your startup. All of these require your careful analysis and attention, since they all bring along different types of risks, including legal risk.

Many entrepreneurs do not realise the importance of having a strong legal foundation for their startup until it is too late. They fail to appreciate that launching a startup is as much about the structure as it is the product or service. Entrepreneurs who seek legal advice at the early stage of their business enjoy the benefit of avoiding many unnecessary legal pitfalls.

Duties to Previous Employers

Many entrepreneurs were once employees of another company before launching their own startups. It is very important for the entrepreneurs to make sure that they do not breach their duties to their previous employers when starting their own companies. Such post-employment duties are usually found in the form of assignment of intellectual property (IP), confidentiality obligation, non-compete and non-solicitation covenants.

- **Assignment of IP** – Many companies (particularly technology-based companies) require employees to sign an IP assignment agreements which provide that the employee agrees that any inventions, ideas, work product or other development conceived or developed during the course of the employee's employment will belong to the employer. Even in the absence of a written agreement, the Copyright Act 1987 and the Patents Act 1983 state that, unless otherwise agreed by the parties, the employer is deemed to be the first owner of the work made in the course of the employee's employment. In other words, if you had invented an invention or written a source code as part of your job, you cannot bring along with you and use it when you leave the company.

- **Confidentiality Obligation** – Under the common law, employee owes a duty to maintain the secrets and confidential

information of an employer, whether or not there is a written agreement to that effect, and such obligation continues even after the employee has left employment. Certain things like trade secrets and customer lists are considered as confidential information. The employee must refrain from disclosing or using such information for the purpose of operating a new startup.

- **Non-compete and non-solicitation covenants** – Depending on the position of the employee, certain employment agreements also include covenants from the employee not to compete with the business, or to solicit employees, customers or suppliers of the former employer for a period of time after the employee has left employment. Generally, non-solicitation covenants are enforceable if properly drafted. As for non-compete covenants, usually such covenants are void to the extent of the restraint unless such covenants are drafted in such a way as to include an element of the use of confidential information belonging to the former employer. There is generally no restriction on stopping an ex-employee from making any use of experiences or skills that he had acquired in the course of his employment, or starting a business to compete with his former employer's business.

Legal structure, licenses, permits

Startups may run their business through different legal structures, such as sole proprietorships, partnerships or companies. Sole proprietorships/conventional partnerships enjoy flexibility in administration as in there is no issuance of shares, no formal requirement to submit financial statements to the Companies Commission of Malaysia (CCM) and no need to hold Annual General Meetings. However, sole proprietorships/conventional partnerships do not enjoy the benefit of limited liability like what a private limited company would enjoy. The owners of a private limited company will only be liable for the company's debts up to the amount of their shareholder investments, except in cases where they are found to be personally liable by law, such as fraud or breach of directors' fiduciary duties.

In light of this, startups should consider setting up their business through a limited liability partnership (LLP). The LLP is a hybrid between conventional partnership and company whereby the partners enjoy both flexibility in terms of administration and the limited liability status. However, if you hope to attract investors, a private limited company might be a better structure.

Depending on the location and nature of your startup, there may be federal, state and/or local licensing and permit requirements that you must follow before launching your startup.

Co-founders agreement, shareholders agreement

If you have one or more than one co-founders, it would be good to put a co-founders/shareholders agreement (depending on the legal structure) in place. The agreement should address each party's role, duties and obligations in the startup, how profit and equity will be divided, voting process, board composition, how the shares will be broken down and at what

price the shares will be sold if a founder leaves, how the startup can be dissolved, etc.

Whether you are bringing in an investment, or hiring an employee or developer, it is important to have a written agreement in place at the outset to avoid disputes in the future (Remember the movie "The Social Network")? Some startups issue shares to key personnel under a share option scheme to incentivize them to work towards the success of the business. This should also be properly documented.

What's in a name?

Names are always important. The power of words should never be underestimated. The company name must contain the word "Sendirian" or "Sdn." and "Berhad" or "Bhd." For LLP, the name must end with the words "Perkongsian Liabiliti Terhad" or "PLT". The company/partnership name must not be the same as any other company/partnership in Malaysia. The law prohibits or regulates the use of certain terms in company/partnership names. Please refer to the "Guidelines for Naming a Company" issued by the CCM for more details.

As for brand name (trade mark) and domain name, you should carry out screening searches to make sure the brand name and domain name are registrable and are not identical or closely similar to another brand name and domain name that belong to another party.

Website ownership and hosting

A website development contract should be put in place to govern your relationship as a client and your web developer. Make sure that you own the copyright in the website (including the source code) and retain full control and freedom over the website. You should also make sure that you get a warranty from your developer that their work product does not infringe other's intellectual property rights and an indemnity to compensate you for any costs and liabilities resulting from the breach of this warranty.

Most of the startups usually have some form of online presence. Make sure that any images, texts or other content placed on your website belong to you or you have obtained a licence to use them. A website terms of use and a privacy policy should always be prominently displayed on your website.

Your contract with the web hosting company that hosts your website must also address several key issues such as available bandwidth, service level guarantees, security, handover in the event you switch to another web hosting company, price and payment, renewal before the contract ends, etc.

Developing and launching a startup can be both exciting and overwhelming. While it might seem like a daunting task, getting the legal foundation right in the beginning stages will save you from unnecessary headaches and allow you to focus on the more important things in your startup. 📌

The view expressed in this article is intended to provide a general guide to the subject matter and does not constitute professional legal and tax advice. You are advised to seek proper legal and tax advice for your specific situation.

Tech Spelunk

Intel Compute Stick

Connectivity Options

As far as connectivity goes, the Intel Compute Stick connects to your TV via a HDMI 1.4b connector, and draws power from a micro-USB cable which can be attached to a power plug, as the device does not draw power from the HDMI port.

On top of that, the Compute Stick also has WiFi and Bluetooth connectivity, which allows you to connect the device to the Internet wirelessly, and you can also use Bluetooth-enabled mouse and keyboard to navigate your way around the Linux and Windows operating systems.



Atom Power!

Being a company who mainly deals in the manufacturing of processors for computers, laptops, smartphones and tablets, the choice of using an Intel Atom processor is almost a no-brainer to them. The Intel Compute Stick uses the Intel Atom Z3735F Bay Trail processor, which is commonly used in a variety of Intel-based tablet devices.

Alongside that are up to 2GBs of RAM and 32GBs of storage space, which is just enough for an operating system. If you do need extra space on the Compute Stick, fret not as Intel has also added a microSD card slot which is capable of supporting cards up to 128GBs in storage size.

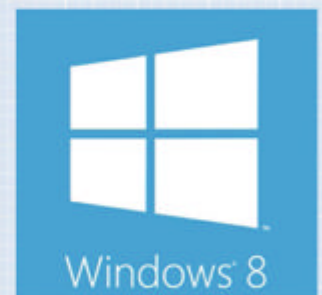
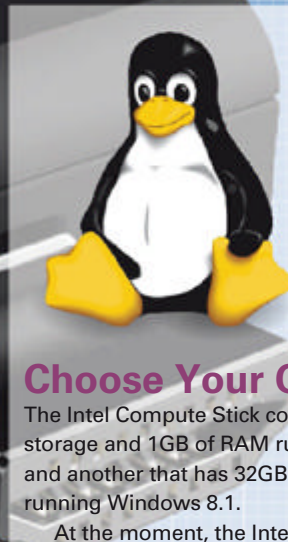
After a barrage of notebooks over the past several issues, we're happy to say that those days are (for now) behind us. This month, we take a look into a future of computing, with one of Intel's latest innovations - a computer on a stick called the Intel Compute Stick. Some of you may think that it's very similar to what Google has to offer in the form of the Chromecast, but Intel's variant has a few tricks of its own By CHIP Team



What Can It Do?

The best thing about the Intel Compute Stick is its ability to run an actual Windows install, which means you have the full suite of Windows apps at your disposal; assuming the Atom processor has enough power to run it, that is.

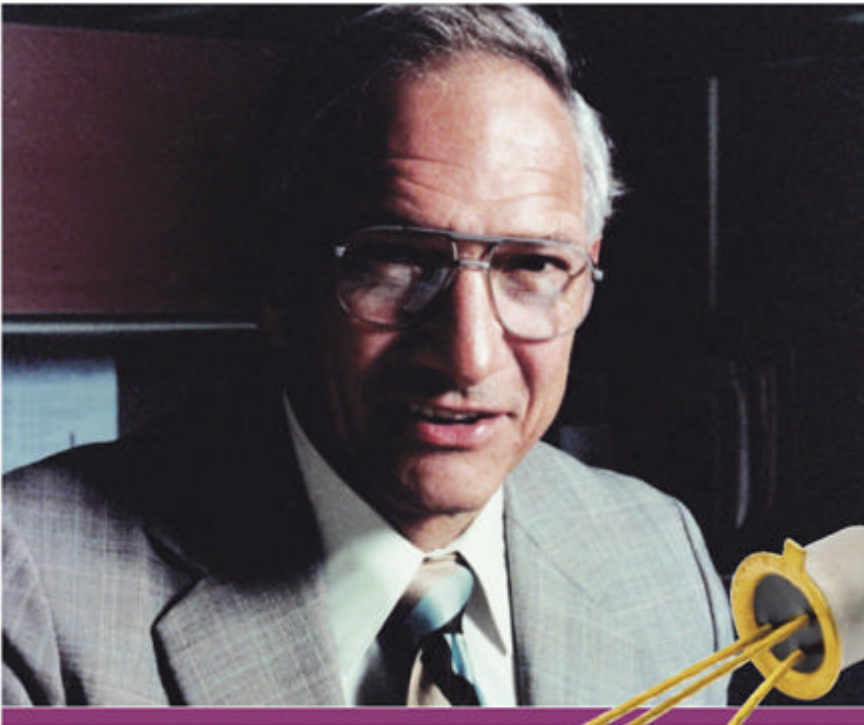
That being said, the Intel Compute Stick is great if you travel very often, and don't want to bring a laptop around. If your hotel room has a HDTV with a spare HDMI port, you can use it as a display for the Compute Stick, and use a Bluetooth keyboard and mouse for a compact mobile office.



Choose Your Operating System

The Intel Compute Stick comes in two variants, one with 8GB storage and 1GB of RAM running a Linux operating system, and another that has 32GBs of storage and 2GBs of RAM, running Windows 8.1.

At the moment, the Intel Compute Stick is being sold in the US for US\$89 for the Linux version and US\$149 for the Windows 8.1 version. The difference in price between the two models is likely because the Windows 8.1 model needs the extra storage and RAM. Both operating systems, Linux and Windows 8.1 with Bing are free to use for OEM companies.



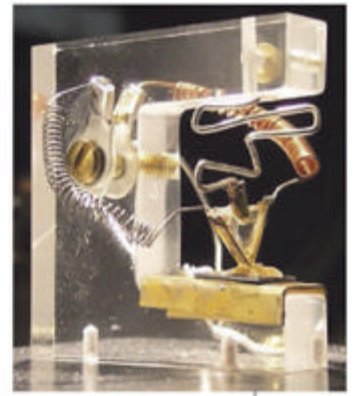
Transistors

Current no. of transistors per chip: up to 7 billion

Worldwide production: 10 trillion per annum

First integrated circuit:

1959, developed by the physicist Robert Noyce



1947

First transistor

William Shockley and Walter Brattain build the world's first transistor

1920 1930 1940 1950

1925

Julius Lilienfeld

Application for the first patents associated with the principle of the transistor



PHOTOS: V. O. N. U.; APPLE: WIKIPEDIA/DENNIS/CC BY-SA 2.5, 1.0, 2.0; BOFFY B/CC BY-SA 3.0; US NAVY/MATE 3RD CLASS TODD FRANTOM; WIKIPEDIA/STAHLKOCHER/CC BY-SA 3.0; WIKIPEDIA (2); SHUTTERSTOCK/LABO

CHIP TIMELINE

Transistors: Electronics's Foundation Stone

With modern chips containing up to 7 billion transistors, it is the cornerstone of electronics as we know it.

There are more transistors on our planet than there are stars in our galaxy, and the number's rising all the time. No wonder; if it hadn't been for transistors, none of the electronic gadgets that dominate our daily lives would have been possible. Transistors are the most important components of electronic circuits. In digital circuits, the status of a

transistor represents exactly one bit.

In 1925, Julius Edgar Lilienfeld applied for the first patent associated with the operating principle of a transistor, and the first model were built 20 years later. Transistors became really popular from 1950 onwards; they were installed mainly in portable radio receivers. This event represented the start of the cycle for the

rapid development of miniaturised transistors.

In 1959, the physicist Robert Noyce developed the notion of using a thin silicon chip to manufacture entire circuits containing multiple transistors. This idea represents the founding of the modern branch of micro-electronics. Robert Noyce (who would later become known as the

**1970****CADC**

One of the first microprocessors is developed for the American F-14A fighter

**1996****AMD K5 Chip**

The AMD K5 accommodates 23757 transistors/mm²

1960 1970 1980 1990 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

**1981****IBM-PC5150**

The first personal computer with Intel's 8088 microprocessor

**2014****iPhone 6**

The A8 processor of the Apple phone has an area of 88 mm², and contains 2 billion transistors


'mayor of Silicon Valley') assembled all the structural elements (including the wiring) on a single substrate, while his colleagues (including Jack Kilby) used wires to connect different components to each other. The field effect transistors that are used to this day consist of a semiconductor material, which is usually silicon.

Electrons flow from a 'source' to a 'drain', and must pass through a voltage-carrying 'gate'. The weaker the gate voltage, the more electrons in the stream. The voltage gate thus toggles the current passing through the transistor.

In 1968, Noyce and Gordon E. Moore founded Intel. 'Moore's law' postulates that the number of transistors in integrated circuits doubles every two years, since the size of the transistors shrinks at about the same rate. Moore believed that his law would become invalid around 2025, because the process of miniaturisation would eventually reach its physical limits. In all probability, his prediction will come true. However, this doesn't necessarily represent the end of the development process for integrated circuits; for example, transistors can be stacked on top of each

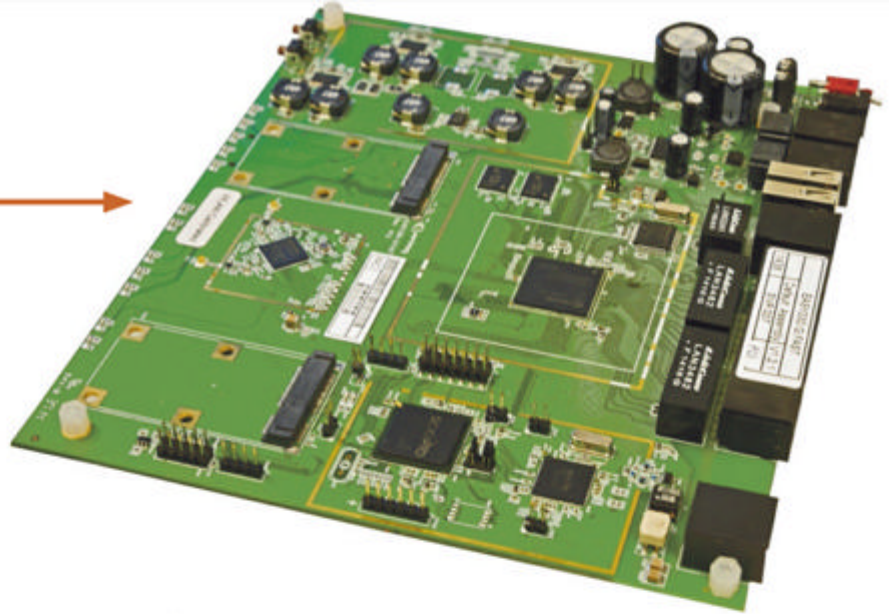
other, to create a denser transistor count in the same area.

Noyce received several awards for his work. Although Jack Kilby received the Nobel Prize for physics in the year 2000, Robert Noyce never received this particular honour.

He died in 1990 at the age of 62 years, and the Nobel Prize was not awarded posthumously. However, the IEEE (Institute of Electrical and Electronics Engineers) has, since the year 2000, been honouring his legacy by awarding the annual Robert N. Noyce medal. 

New hardware

G.fast requires new hardware for the providers and new modems for the users



DSL afterburner

G.fast facilitates higher speeds while using the existing copper cables. The technology draws on the established features of VDSL, and is calibrated vis-à-vis additional tuning screws.

G.fast vs. VDSL

G.fast is the successor to VDSL, but it doesn't exactly reinvent the wheel. Its modulation and interference suppression facilities are similar to those of its predecessor, but it features newly-enhanced frequencies and a new communication technique.

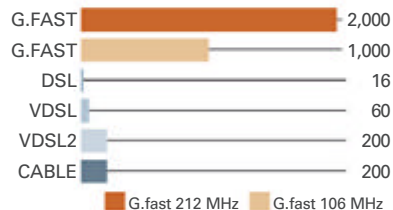
	G.FAST	VDSL
Maximum speed	1 GBit/s	200 MBit/s
Vectoring	■	optional
Range (max. bandwidth)	Up to ca. 50 metres	Up to ca. 300 metres
Maximum frequency	106 or 212 MHz	17.7 or 30 MHz
Modulation process	DMT	DMT
Downstream/Upstream separation	Time Division Duplex	Frequency Division Duplex
Bits per sub-channel	12	15
Forward Error Correction	■	Only VDSL2
Impulse Noise Protection	■	Only VDSL2

■ YES □ NO

Speed comparison

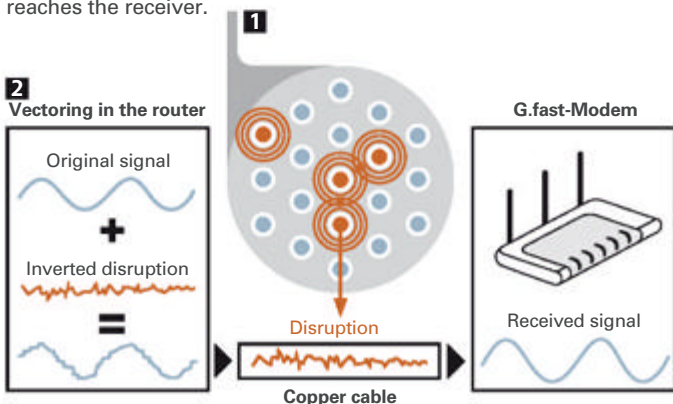
In practice, the fastest internet connections currently offer a speed of 200 MBit/s. Theoretically, G.fast can increase this figure by a factor of 10.

SPEED (IN MBit/S)



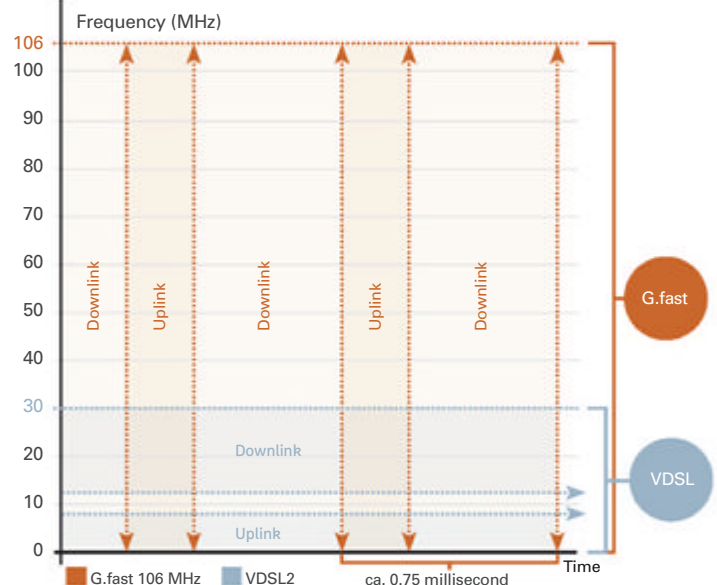
Vectoring as a pre-requisite

The last section of a G.fast connection passes through a group of copper cables, and the signals disrupt each other **1**. In the router, the vectoring software computes the inverted disruption associated with the signal **2**, for each participant, and the disruption-free signal reaches the receiver.



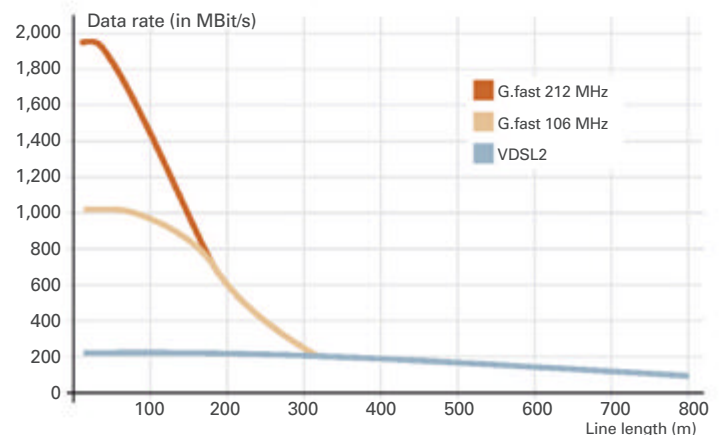
Time instead of frequency division duplex

VDSL reserves a specific part of the frequency spectrum for the downlink and the uplink, while G.fast uses the time division duplex method to allow the downlink and the uplink to use the entire bandwidth.



High speed over short range

G.fast is significantly faster than VDSL2, but only for the first 250 metres: Both G.fast versions retain the high speed along the first 50 metres of the copper cable, after which the speed drops significantly. From a distance of 250 metres onwards, the speed settles down at the level of VDSL2.



Speedier Copper

VDSL is fast, but G.fast, the new broadband technology, sends data through the line at speeds of up to two GBit/s. CHIP shows you how it works By Jörg Geiger

We know Malaysia surfs slowly: Although about 67.1 percent of the country is connected to the internet, only a small number (around 8.4 percent) achieve speeds in the range of 6 to 16 MBit per second, which represents the classic DSL speed. And what about VDSL, vectoring, fast cable networks and fibre optics? The fact is, transfer speeds of 50 MBit/s or more is somewhat cost prohibitive for a country with legacy connection options like Malaysia. However, that could change soon. G.fast (the successor to VDSL) is being developed in parallel with the expansion of the fibre-optic networks. The highlight is that even though G.fast uses the existing copper cables, it manages to attain a bandwidth of 1 GBit per second in the first expansion stage. In the second expansion stage, data is expected to be sent through the line at the rate of 2 GBit per second, which would be equivalent to 125 times the speed of the fastest DSL connection. G.fast is being standardised (ITU-T G.9701) by the ITU (International Telecommunication Union), and the abbreviation stands for 'fast access to subscriber terminals'. An accompanying standard (G.9700) ensures that G.fast does not impede wireless standards such as UKW-Radio (87.5 to 108 MHz). This is necessary because the successor to VDSL uses an old trick to enhance its capacity: The use of many high frequencies. While VDSL runs into its limits at 17.7 or 30 MHz, G.fast uses frequencies of 106 or 212 MHz in both expansion stages.

Suppression transmitter: Vectoring is a must


High frequencies have one weakness: the interference liability increases sharply after only a few metres of the line have been laid down. The biggest problem with G.fast is the so-called 'cross talk' factor. The wire-pairs in a cable influence each other, thus resulting in unclear signals - which in turn lead to lower transfer rates for all parties. In order to prevent this from happening, G.fast is only used in conjunction with a vectoring procedure (which is also used for VDSL2). In this procedure, a software application computes an inverted interference signal for each pair of wires in the line, which is done within the cable router. This signal is then combined with the original signal. This trick neutralises the cross talk and ensures that the client receives a clean signal (refer to the graphic to the left). In case of VDSL, there are variants that use the vectoring technique as well as those that do not. However, when it comes to G.fast, vectoring is a must, since it would not be possible to reach the peak speeds without this suppression process.

Vectoring isn't the only technique that can be used to counter disruptions. There is also the forward error correction (FEC) method, where data is sent redundantly in order to rule out potential errors. If the transmission process leads to a string of errors, the user can detect them. The user can usually correct these errors with the help of the redundant data without needing to raise any queries - This means that the data packets do not have to be resent again.

Not everything had to be re-invented for G.fast. For example, the modulation system is identical to the one used for VDSL. Both of them use DMT (discrete multi-tone transmission) method, in which the frequency band is divided into several sub-channels. The 106-MHz variant of G.fast uses 2048 sub-channels, each of which has a bandwidth of 51.75 kHz. The 212-MHz variant uses 4096 sub-channels. However, the separation between the downlink and the uplink has been re-designed - in the case of DSL and VDSL, a specific part of the frequency spectrum is reserved for downloads and uploads. A part of the spectrum is lost between the downlink and the uplink, as a minor safety gap of a few kHz separates the two frequency bands. G.fast, on the other hand, uses the time division duplex (TDD) system; in this case, the downlink and the uplink take turns using the entire frequency band. For G.fast, a combo-section with a downstream operation and an upstream operation occupies a time period of about 750 microseconds. In practice, this also gives rise to a big advantage for the customers. While DSL and VDSL systems make it necessary for the customer to accept, within the context of his internet tariff plan, a fixed segmentation framework for downstream and upstream operations - the G.fast system can be a lot more flexible. Consequently, a symmetrical network (e.g. 500 MBit/s for downloads and 500 MBit/s for uploads) becomes feasible.

A sprinter, not a marathon runner

G.fast is a sprinter, not a marathon runner. This means that the peak speed is only reached over a very short distance. Tests performed by the Fraunhofer Institute indicated that in case of both G.fast variants, the top speed can only be attained over a 50-metre long copper wire. After this length is exceeded, the speed drops quite sharply. G.fast settles down at the level of VDSL2 after 250 metres of copper. From the providers' point of view, the new technology means that they will have to upgrade their routers. The keyword is FTTdp (fibre to the distribution point), and under the new arrangement, the two-wire lines made of copper will have to branch off from special distribution boxes ('micro-nodes') and reach the customer's location. These mini-routers will have to be closer to the customer than a classical DSL router.

However, tests performed by Alcatel Lucent demonstrates that G.fast is not the end of the road. XG-Fast, the successor to G.fast, is currently being fine-tuned, and the tuning tools look quite familiar: In case of XG-Fast, the frequency range is being extended yet again - to 500 MHz. The transmission process makes use of both wire-pairs of the established connections. In initial tests, data was transferred at the rate of 10 GBit/s over a distance of 30 metres - That's 625 times as fast as the DSL data rate. 

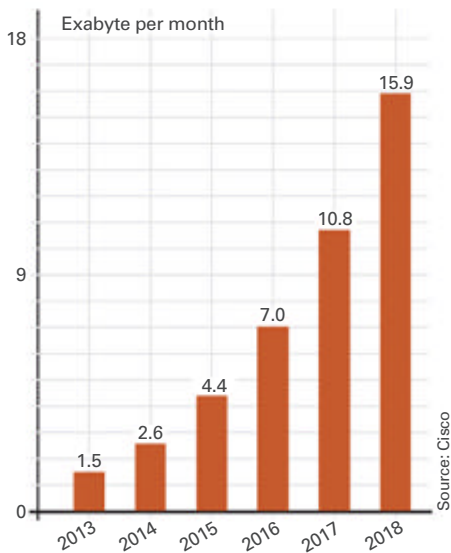
Invasion by Mobile Telephones

By Claudio Müller

Internet surfing is traditionally associated with PCs. But many users, especially from developing countries, use their mobile phones to access the web rather than the desktop computer. This is evident from the extremely sharp rise in the number of activated mobile phone SIM cards as well as from the projected increase in the network traffic in mobile phone networks. The figures for activated SIM cards obtained from the World Bank show that developed countries such as Germany or USA lag way behind countries like Kazakhstan or Gabon, where the number of mobile phones per 100 residents has increased many times over in the last ten years. The speculation is that many people cannot afford expensive PCs, so they use mobile phones, which have become cheaper to own, to obtain information from the Internet and to communicate online. The per-head density of mobile phones is much higher in city states such as Hong Kong or Macau, which is perhaps the result of a better developed mobile phone network. Cisco also thinks that this trend will continue; in its study, it anticipates a tenfold increase in mobile traffic by 2018. 🇨🇦

Internet traffic on mobile phones

Cisco's prognosis of the development of mobile data volumes shows quite clearly that the world is surfing and communicating more and more via mobile devices.



Activated mobile phone SIM cards per 100 residents (2013)

Italy
151

Growth since 2003: 54 percent

USA
96

Growth since 2003: 74 percent

Germany
119

Growth since 2003: 54 percent

Macau
304

Growth since 2003: 275 percent

Kazakhstan
181

Growth since 2003: 1910 percent

Hong Kong
239

Growth since 2003: 125 percent

Gabon
215

Growth since 2003: 834 percent

North Korea
10

No SIM cards were counted in 2003

feature

windows 10 updates

Business

Office Touch, Mobile Device Management for all devices, Multi-Desktop Support

Consumer

Language assistance, MKV and FLAC Support, reliable Interface with start menu, regular new functions

Mobile

Windows Phone Basis, Universal Windows Apps

Games

Direct X 12, Xbox One-Basis, Cross Platform Games

Windows 10: Journey to the final version

Datum	Version	New features
1st October	6.4.9841	Start menu, Multi-Desktop
21st October	6.4.9860	Action Centre
12th November	6.4.9879	Laptop trackpad gestures
Not published	10.0.9888	Switch to version 10
End of January 2015	10.0.99xx	TBA
End of April 2015	Developer Preview	TBA
Late summer 2015	Final	TBA

The Windows Insider program gives experienced users access to the latest Technical Preview. At windows.uservoice.com, users can select Windows 10 functions that are most important for them.

From a Small Circle to Beta Testers

Each Windows 10 Build goes through several "test rings" before it is made available to the participants of the Preview program. Depending on how stable a Build is, it is first sent to Microsoft employees, then to risk-seeking Fast Ring participants, and finally to Slow Ring participants.

Canary

One Windows 10 Build is produced and tested by programmers daily

Operation System Group

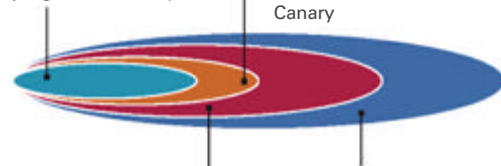
The operating system department receives the Build after it is released by Canary

Microsoft

After the OSG, thousands of Microsoft employees test the new Windows 10 Build

Windows Insiders

They get the new Build immediately (Fast Ring) or after a short wait (Slow Ring)



All Eyes on Windows 10


Users and hardware manufacturers were disappointed with Windows 8. Version 10 should set everything right By Niels Held

Microsoft has been in a tight spot ever since it realised that Windows 8 would be a flop. Business as well as private users had problems with the fact that Windows 8 had a modern UI that was radically biased for tablet use and the consequent absence of the start menu. They therefore preferred to remain with Windows 7 or even the outdated Windows XP.

Windows 10 is slated to make things right again. To ensure that this happens, Microsoft has roped in customers as early as possible in their testing phase. The Windows 10 Technical Preview is the best example of Redmond's new strategy for development. Any interested PC user can participate in the Windows Insider program and give his or her feedback on the new Windows. The installation pattern of the participants (see graphics on the right) shows that many of them are not only interested in the test but also in replacing the unpopular Windows 8 as soon as possible. From 1st October, they can download new preview versions of the next Windows on a regular basis. The first version, meant for IT professionals and not for consumers, reached one million installations in just two weeks. More than

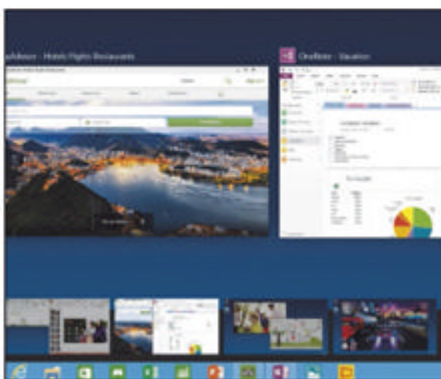
one third of the users are using the system on a hard disk and not on a virtual machine.

Windows 10 not only bring back the start menu, it also unites the visual effect of the familiar user interface with a modern UI. Furthermore, Microsoft introduces features that has been available on other operating systems, like the Multi Desktop system. Many of the features have been included thanks to the user feedback; in the second Technical Preview itself, Microsoft combined the control panel and modern UI PC settings in a new settings dialog – one of the most requested functions.

Even PC and component manufacturers are waiting eagerly for Windows 10. "There are about 600 million PCs, which are four years old or more and are ready for an upgrade", Renée James, President of Intel Corporation, said recently at a conferences. A new Windows could literally set the PC market on fire: Windows XP users and Windows 7 Business users who are willing to make the switch will be joined by tablet owners, who have paid very little attention to their PCs over years. Windows 10 can bring them back to the desktop. 



To the annoyance of many users, Microsoft had removed the start menu from Windows 8. It is back in Windows 10

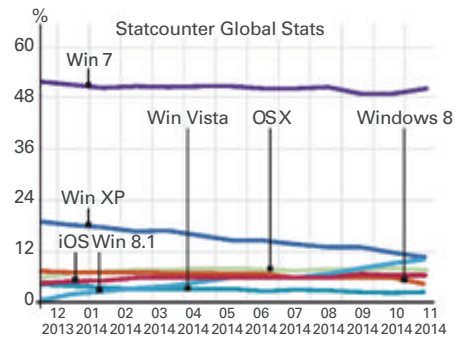


Windows 10 would be the first Windows version to natively provide a Multi-Desktop system for private and business use

WINDOWS FACTS

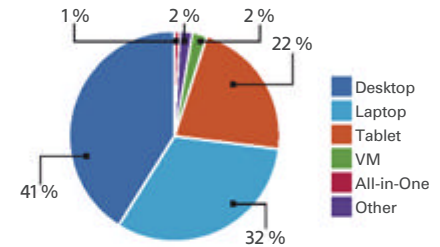
A new Windows is a must

Two and a half years after the launch of Windows 8, its user figures continue to go down. Users prefer the older and far better Windows 7.



PC users want a change

Most users have installed the Windows 10 Technical Preview on their desktop PCs or laptops as the standalone OS – hardly any user selected a virtual machine.



Microsoft counted **1 million** installations two weeks after publishing the Windows 10 Technical Preview on 1st October 2014. Microsoft received **250,000** feedbacks via the Windows feedback tool between the first two previews.

"There are about 600 million PCs, which are four years old or more and are ready for an upgrade"

Renée James, President of Intel Corporation

Microsoft's ping-pong cycle

In the history of Windows, a popular version has always been followed by a version that is despised by users. Vista and Windows 8 are the most prominent examples.

- ▲ Windows 3.11
- ▼ Windows 95
- ▲ Windows 98 (SE)
- ▼ Windows Me
- ▲ Windows XP
- ▼ Windows Vista
- ▲ Windows 7
- ▼ Windows 8
- ▲ Windows 10 (estimated)



Free Yet Dangerous

The net is full of 'free' movies and series. But very few of the sources are legal. We share you what is safe and what is not online By Benjamin Hartlmaier

If you visited boerse.bz recently in the hope of finding the latest blockbusters free of charge, you are in for a huge disappointment. "Bye! Owing to recent events, we have decided to close the forum". This is the only thing you will see next to a brief vote of thanks. "Recent events" refers to the various police operations against piracy in Germany. On 4th November, officers stormed the houses of 121 people as part of a nationwide raid. A total of 400 police officers led by the public prosecutor's office, Cologne, participated in this operation. This was triggered by a notice issued by the Gesellschaft zur Verfolgung von Urheberrechtsverletzungen (GVU - Society for the Prosecution of Copyright Infringement) in conjunction with the Munich-based solicitor's office Waldorf Frommer, which is dreaded by file sharers due to the mass warnings it sends to copyright infringers. The recent raid on boerse.bz was not the only blow to illegal free

films on the net. Two weeks before that, two brains behind the portal Kinox.to were handcuffed too. However, both main suspects, who have also been accused of operating other sites such as movie4k.to and bitshare.com, escaped. A search for them is on across Europe.

Will there be a new wave of warnings issued?

The massive police deployment, numerous confiscated servers and the involvement of legal representatives may have made many users feel unsure - will there be a new wave of more warnings? What all is allowed on the Internet? We spoke to the copyright and media law solicitors Bernhard Knies and Tobias Röttger about legal, illegal and semi-legal film viewing on the Internet.

Piracy

Illegal copies of the latest blockbusters are easily available on the Internet. What seems to be a profitable business for the operators of dubious sites can soon end in legal warnings for users.

Definitely Illegal

Be it from a file hoster or via online exchanges: if you download a film illegally instead of streaming it, you will be prosecuted

The question of whether downloading a free film on the net is an offence or not mainly depends on the way in which this is done and on the source of the film or the series. Some things are definitely illegal; for example, downloading a copyright protected work such as a latest film via an online exchange or a one-click hoster such as BitShare is illegal. Visiting sites such as Kinobox.to or the recently shut down pirated copy forum boerse.bz, which collect links of illegal film copies meanwhile is technically safe for users when seen purely from the legal point of view. "Simply logging into such a forum is not illegal", explains Röttger. "Even clicking a link is not illegal." Things become problematic only if a film or a series is downloaded from one of the linked one-click hosters. "A download is prohibited if it originates from an evidently illegal source", says Knies. This means that the user must be able to identify whether a film is provided legally or illegally. In any case, one should be suspicious of films and series that are offered for free although they are still running in theatres or on video-on-demand services.

If a user is caught downloading content illegally, he or she should expect a written warning sent to them. "In such cases, the compensation could be equivalent to the value of a DVD or Blu-ray plus legal fees", explains Knies again. "Getting legal warnings for downloads is very unlikely", adds his colleague Röttger. This is mainly because it is not easy to get the IP addresses of downloaders as the info are probably not logged by one-click hosters each and every time.

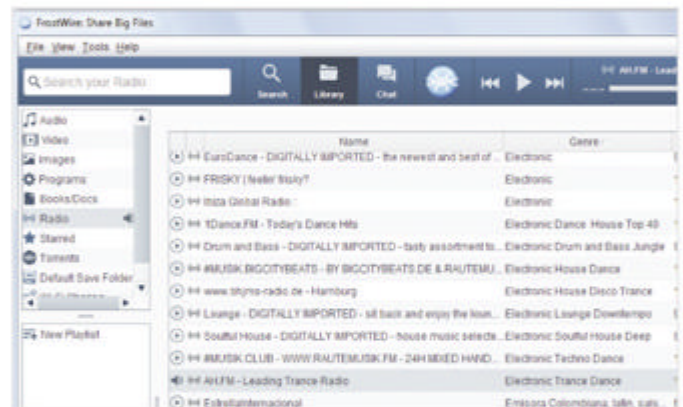
Hands off online exchanges!

Things are very different when it comes to downloading copyright protected works via Peer-to-Peer (P2P) online exchanges like FrostWire or Torrent clients like BitTorrent. "The risk of receiving legal warnings is the highest here", says Röttger. The reason lies in the architecture of the file sharing system itself. During a download, the downloaded file is also always shared with the other members of the network. As a result the IP address of the user is visible to everyone. Lawyers sending the warnings can easily read these IP addresses. "Waldorf Frommer uses the ipoque client from Rohde & Schwarz for this purpose - which is basically spy software", explains Knies.

Illegal downloads via P2P networks increase not only the risk of getting caught but also the risk of a possible penalty. "Since it is not possible to track how many people received a file during a P2P download, solicitors' offices generally ask for a notional license fee as compensation", says Tobias Röttger. Waldorf Frommer generally demands about 600 euros (~RM2500) per film plus the net legal fee, which is between 125 and 200 euros (~RM500 – RM815). File sharing clients themselves are not illegal but the download and upload of a protected file is punishable.



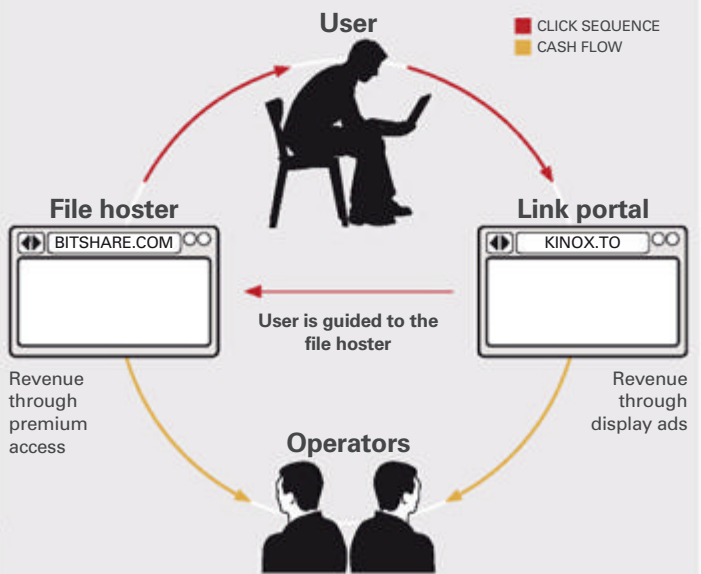
Kinobox.to is one of the 50 most popular sites in Germany. The site is online again in spite of the raid



If you download copyright protected material via P2P clients such as FrostWire, you will probably receive mail from a solicitor who specialises in warnings

The Kinobox.to system

With a network of over 30 websites, the people behind Kinobox.to make millions, says the GfK. Link portals (like Kinobox.to) serves as marketing sites for one-click hosters of films



Legal-ish Grey Areas

Whether streaming of illegal film copies is an offence or not is still ambiguous. Experts also have a divided opinion on what constitutes private copies

The legal standing on streaming is much more ambiguous when compared to that to downloads; "Whether streaming films via a portal like Kinox.to is an offence or not is not clear and this topic is currently surrounded by a hot debate", says Knies. In the course of the RedTube warning hullabaloo that occurred about a year back, the German Federal Ministry of Justice had stated the opinion that simply viewing a stream doesn't result in copyright violation. However, there is still no decision by the German Supreme Court on this issue. A request regarding the same has been made to the European Court of Justice, but it hasn't come to a decision due to procedural reasons.

They key question about streaming via questionable portals such as movie4k.to is whether the user creates a copy of the film when doing so. In the case of a regular stream, a file is downloaded on the PC RAM only partially or temporarily, thus there is no unanimous answer to this question. "Whether streaming can be classified as copyright infringement or not ultimately depends on whether the lawyer is on the user's side or the right-holder's side", says Knies. His colleague Röttger points out that one has to consider the technical details on a case-to-case basis; "If it is not a progressive download (where the film is gradually downloaded fully in the temporary storage), simply viewing a stream does not, according to me, constitute copyright infringement." However, he would not like to give an absolute guarantee for this for the lack of a judge's decision. At the same time, he doesn't believe there will be a new flood of warnings for streaming: "The solicitor's office Waldorf Frommer, which was involved in the operation against boerse.bz, has already announced that it was only meant for the operators of the site."

Controversial YouTube downloads

On the other hand, there are absolutely no problems in streaming films from legal sources such as YouTube, says Knies. "A user need not check whether a video on YouTube is legal or not." But downloading content using popular tools such as Free YouTube Download (see column on the right) is a sticky issue. "Since YouTube doesn't provide a download button, downloading videos using such tools could be regarded as an attempt to bypass technical security measures, which would make the download an illegal private copy." This is also applicable to downloads from public-service media libraries.

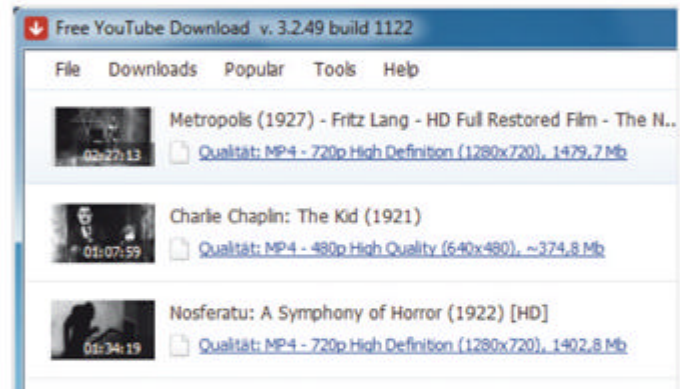
Röttger sees this differently: "Since one isn't using any special software that overturns copy protection, one would not bypass a technical security measure." Although the terms of use of YouTube state that videos may only be viewed and not saved, this is not relevant in practice because there is no compulsion to read these terms before streaming, says Tobias Röttger. Both solicitors agree on one thing though: the probability of receiving warnings due to downloads from YouTube or media libraries is very low.

Private copy – a Point of Dispute

YouTube videos and contributions from media libraries can not only be streamed but also downloaded using specific tools. However, it is not clear if these are considered to be permitted private copies



Is this classic present on YouTube legally? This question is not relevant for users as long as they are streaming it.



The moment a YouTube video is permanently saved using a download tool, its legality becomes ambiguous



MediathekView downloads contributions from media libraries. Lawyers are in dispute about whether this is legal



"Users need not verify if YouTube videos are legal"


Dr. Bernhard Knies,
Knies & Albrecht solicitors, Munich

Free of Charge, and Legal to Watch

Yes, there is such content on the Internet; free movies, which are also perfectly legal. Although the selection is quite poor right now, the situation could change soon

The best way to protect yourself from legal warnings is to completely avoid the use of questionable portals like Kinox.to and instead watch the latest films in theatres, on Blu-ray or via Video-on-Demand services. Of course, these options are not free but if you don't want to shell out any money for streaming and yet be on the right side of the law, you could take a look at clipfish.de, netzkino.de and myvideo.de for instance. These portals are the so-called Advertised-Video-on-Demand providers. This means that ads are shown before and during a film. But these portals have a major disadvantage: they mainly offer old films or B-grade movies, because Hollywood studios don't usually release the latest blockbusters for this advertising-financed distribution channel. However, these portals can be a useful option for fans of documentaries and Asian films.

Amazon plans free film streams

The selection of legal and free films on the net could soon get bigger: according to a report in the New York Post, the online giant Amazon plans to provide free streaming in future. The service, which is supposed to start in the beginning of 2015, will also most probably be financed through ads, reports the New York Post. As of print date, we do not know if Malaysia will be part of the plan. We also don't know whether Amazon would succeed in convincing big Hollywood studios to break their present marketing strategy and release latest films and blockbusters for advertising-financed streaming. If that happens, the right-holders would be able to put an end to illegal portals once and for all. 

INFO

Legal and Free Sites

Just because something is available free of cost on the Internet, it doesn't mean that it is illegal. In addition to films and series, many music tracks, e-books and audio books are also available legally and free of cost.

SITES WITH FREE FILMS, MUSIC AND BOOKS

Site	Content
clipfish.de	The portal shows TV content of RTL as well as BBC series such as the anarcho-comedy "Little Britain". It also provides some blockbusters such as Bruce Willis' "Hostage"
Tonton.com.my	Belongs to Media Prima, where famous shows from the Media Prima stable and selected Korean dramas are available to view for free, without much restriction
netzkino.de	Provides many classics and Asian films, some of them also in HD. Also available as an app for all the current mobile operating systems, smart TVs and Google Chromecast
soundcloud.com	Numerous popular artists and newcomers provide their music for streaming or downloading here
spotify.com	Free selection from millions of songs as stream. With advertisements for free accounts
www.free-ebooks.net	More than 200 classics such as "Treasure Island" or "Alice in Wonderland" as free e-books for downloading



Sites such as Tonton.com.my offer legal and free shows but the user has to put up with ads and limited library

What do the Creative Commons licenses signify?

Digital videos, photos, music tracks and texts having a Creative Commons license (CC) are considered as free content. However, this does not mean that one can do what one wants with them. Here we provide a detailed explanation of what the most important license components mean



This symbol stands for the so-called BY license. It lets others change and distribute someone else's work and build upon it as long as they credit the original creator



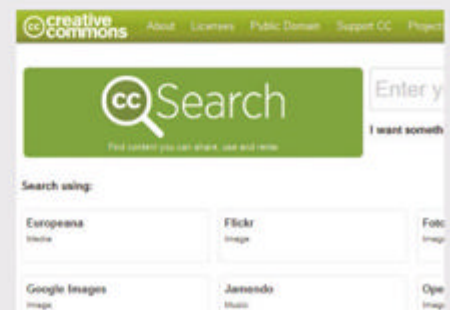
Content provided with an NC license (Non-Commercial) may not be used for commercial purposes. If one makes money through a site, one must not publish such content there.



An ND license (No Derivatives) allows redistribution of a work if the source material is passed along unchanged and as is. Distribution of parts of the work is not allowed.



The SA license (Share Alike) means that works may be distributed under identical terms. For instance, material with an NC license may not be released for commercial use.



The site search.creativecommons.org finds CC-content on the web

Quick and Safe Surfing with HTTP/2

HTTP is outdated, insecure and is a bane of many websites. HTTP/2 is finally here to put an end to this sticky situation By Markus Mandau

Everyone has typed the character string `http://` in the address bar of their browser. Even when Tim Berners-Lee hosted the first website on the Internet in 1991, its address started with HTTP. Browsers and servers have been communicating with each other to request or send websites via the Hyper Text Transfer Protocol (HTTP) since the start of the Internet. The current version 1.1 of HTTP has been in use ever since 1999 – virtually unchanged except for a few subsequently added optimisations. To many, this has becoming a big problem.

Websites had a very simple structure 15 years ago - HTML code and a couple of images, nothing more. But since then, the number of individual objects that constitute a website has multiplied (see right). JPEGs forms the lion's share, but there are also huge JavaScript files that a browser needs to analyse and execute. Add to this are the Cascading Style Sheets (CSS) that determine how the HTML elements of a page should be displayed. Modern websites have more in common with simple apps than with the websites from the last millennium. HTTP 1.1 was never adjusted to these changes; the protocol doesn't have the ability to efficiently transmit pages with complex structures to modern web browsers. This results in HTTP communication that is characterised by a lot of idling, and websites opening in a browser at a much slower rate than they actually can. It doesn't matter whether one works with a download rate of 5 MBit/s or 20 MBit/s - any increase in speed doesn't play a role in building up a site (see right).

A new version of the application protocol – HTTP/2 – is supposed to solve this problem. HTTP/2 is implemented in all the popular browsers and will speed up the opening of a web page noticeably. Its aim is to reduce the response time of the server to such an extent that there is real-time interactivity between the surfer and online service, as is the case in offline apps. The best part is that using HTTP/2 is already very simple.

HTTP 1.1 thwarts the Internet

It is high time for a new HTTP protocol to be introduced. The problems of Version 1.1 are deeply rooted and starts with the interaction in the Transmission Control Protocol (TCP) level. TCP determines how data packets are sent, as it has mechanisms to replace lost data packets and to respond to bottlenecks; for example, when a router gets overloaded and starts rejecting many packets. The Transport protocol works best when browsers and servers establish only one TCP connection and constantly fill this with data.

In actual web communication however, HTTP 1.1 establishes an unnecessary number of TCP connections. This is because the

communication pattern is too simple: the browser requests and the server responds. According to this pattern, the browser first requests the central HTML file with a GET command, and the server sends it to the browser, which then analyses the HTML document and demands all other files as indicated in the style sheets and scripts as they contain information that is needed for the layout of the website. The files includes images, banners, icons, fonts and videos. To speed things up, the browser opens up to eight other parallel TCP connections to load the 120 objects on the computer – it creates a connection for every object and then sends the GET command.

This causes the first temporary forced break; every TCP structure must be set up by a handshake between the server and the browser. It is only then that the server sends the requested data to the browser via HTTP. Depending on the number of objects, the connection quality and server load, the response times can increase by several seconds. The next break occurs because the browser has to first process the received data for every connection before making new requests. If this requires a lot of calculations, the tasks list pile up and cause what one calls Head-of-Line blocking. This problem gets aggravated when TCP packets get lost during transmission and the browser has to request them again.

There are a few tricks to bypass the shortcomings of HTTP 1.1. Web programmers like to integrate small graphics in a large image (Spriting) or embed them directly as code in CSS (In-lining). This minimises the number of HTTP requests made. The integration of many JavaScript commands a single file also serves the same purpose. These measures reduce the number of connections but increase the probability of Head-of-Line blocking. The blocking problem aggravates when, for instance, one wants to reload content using the reload button on a news website. In this situation, a new contact needs to be established via TCP because only the browser may trigger the reload. But HTTP 1.1 doesn't allow the server to independently push the data to the browser. On the other hand, the server has to perform the complete transmission of updated files with the collected scripts or images again. The ideal scenario would be that the server automatically only sends the changed code – this is possible only in HTTP/2.

HTTP/2 protocol with Push option

The new version of the HTTP protocol seeks to improve the shortcomings of version 1.1. For this, it bases the communication between browsers and servers on a different principle: if a connection is established, the server can independently send content to the browser. This server push not only optimises the

PHOTOS: THINKSTOCK/INGRAM PUBLISHING (FIBRE OPTIC CABLE), IAKOVKALININ (STREET) INFOGRAPHICS: ANDREIA MARGARIDA DA SILVA GRANADA



http/2: Resolving_problems



Five policies that control the Internet

The transport and retrieval of a website are carried out by several protocols. TCP is important for transfer and, based on that, HTTP is important for communication.

HTML Display layer

The web code displays the page content in the browser.

HTTP Application layer

The application layer regulates how browsers and servers communicate.

SSL, TLS Security layer

The secure socket layer ensures encrypted connections.

TCP Transport layer

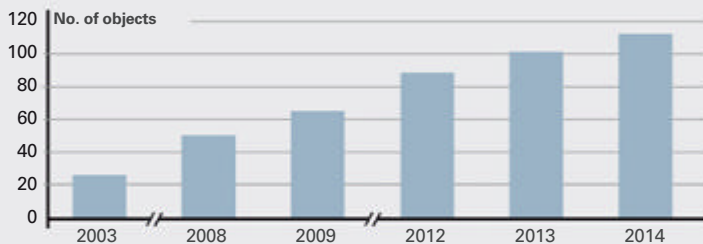
The transport layer determines how data packets are sent.

IP Address layer

Every device in the network receives a unique address.

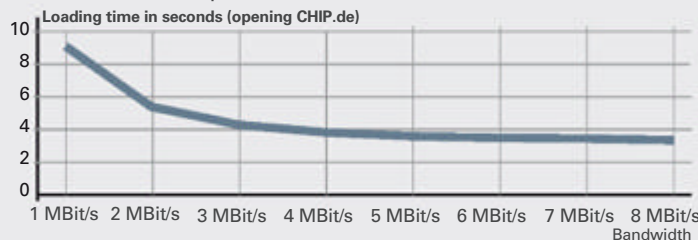
Websites are getting more and more complex

An analysis of the top 1000 websites shows that the number of objects in them is increasing. The more the number of objects, the more problems HTTP 1.1 faces during transmission.



HTTP 1.1 doesn't make full use of high bandwidths

A quick DSL line enables high download rates, but doesn't accelerate the retrieval of websites. The inefficient connection build-up of HTTP 1.1 hinders the retrieval process.



HTTP/2 accelerates data dispatch

Compared to HTTP 1.1, HTTP/2 sends data much faster – Google established this for its services. Neotys, a company for web tests, has shown that this also reduces the load on the server.

INCREASE IN SPEED: HTTP/2 VS. HTTP 1.1

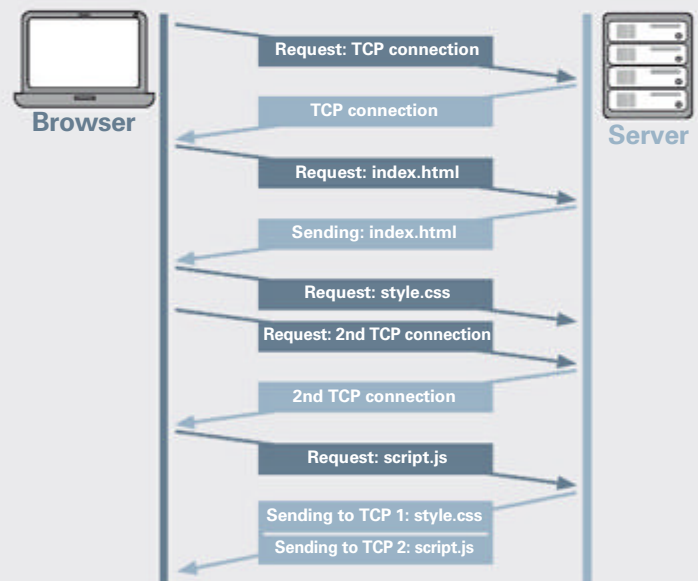
GOOGLE NEWS	+43%
GOOGLE SEITE	+27%
GOOGLE DRIVE	+23%
GOOGLE MAPS	+24%

SERVER UTILISATION AND USER REQUESTS

	HTTP 1.1	HTTP/2
Response time with 100 users	1.3 s	1.1 s
Response time with 200 users	7.8 s	1.1 s
Response time with users	72.0 s	2.7 s

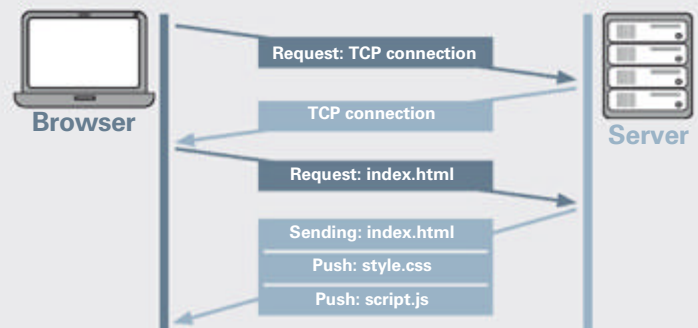
Website retrieval with HTTP 1.1

A browser needs three file types to display modern websites: HTML, CSS and JavaScript. In HTTP 1.1, the browser has to request them one after the other. Additional TCP connections accelerates this process.



Web page retrieval with HTTP/2

HTTP/2 sends the same three files to the browser faster because the server automatically sends the files required for their display via Push. One TCP connection is sufficient for this.



update rates of already loaded websites but also accelerates site construction when it is called up for the first time. Like 1.1, HTTP/2 also starts data transmission with a TCP connection, but follows a different method thereafter. HTTP/2 carries out the entire data traffic via this single connection. Thanks to the server push, the browser no longer need to find out which scripts and style sheets it has to request; the server sends them automatically. This reduces the number of round trips and eliminates Head-of-Line blocking thanks to multiplexing. The browser then can send new requests even while the server is sending data packets to it. Multiplexing works in HTTP/2 because the new protocol defines a structure around the data packets. HTTP 1.1 cannot do this. Every packet has a header in the text format, followed by a body with the content.

HTTP/2 establishes only one connection, through which data flows almost continuously. For this purpose, the browser and server may open any number of streams within a connection and simultaneously send messages back and forth via these streams. The streams can transmit either a file type or a file. Every stream receives a number for identification so that data from different streams can also be mixed by the server. The browser then compiles it correctly.

Transmitting important data first

The more important point is that the priority level that is assigned to every stream. In HTTP 1.1, the browser doesn't understand which data is important for constructing a website quickly; the protocol does not send any information about this. It is only after analysing the HTML file that the browser identifies the style sheets and scripts that it needs. In HTTP/2, all streams have a priority level so that the browser first processes the streams with the highest

priority. HTTP/2 thus makes tricks like in-lining or spriting obsolete.

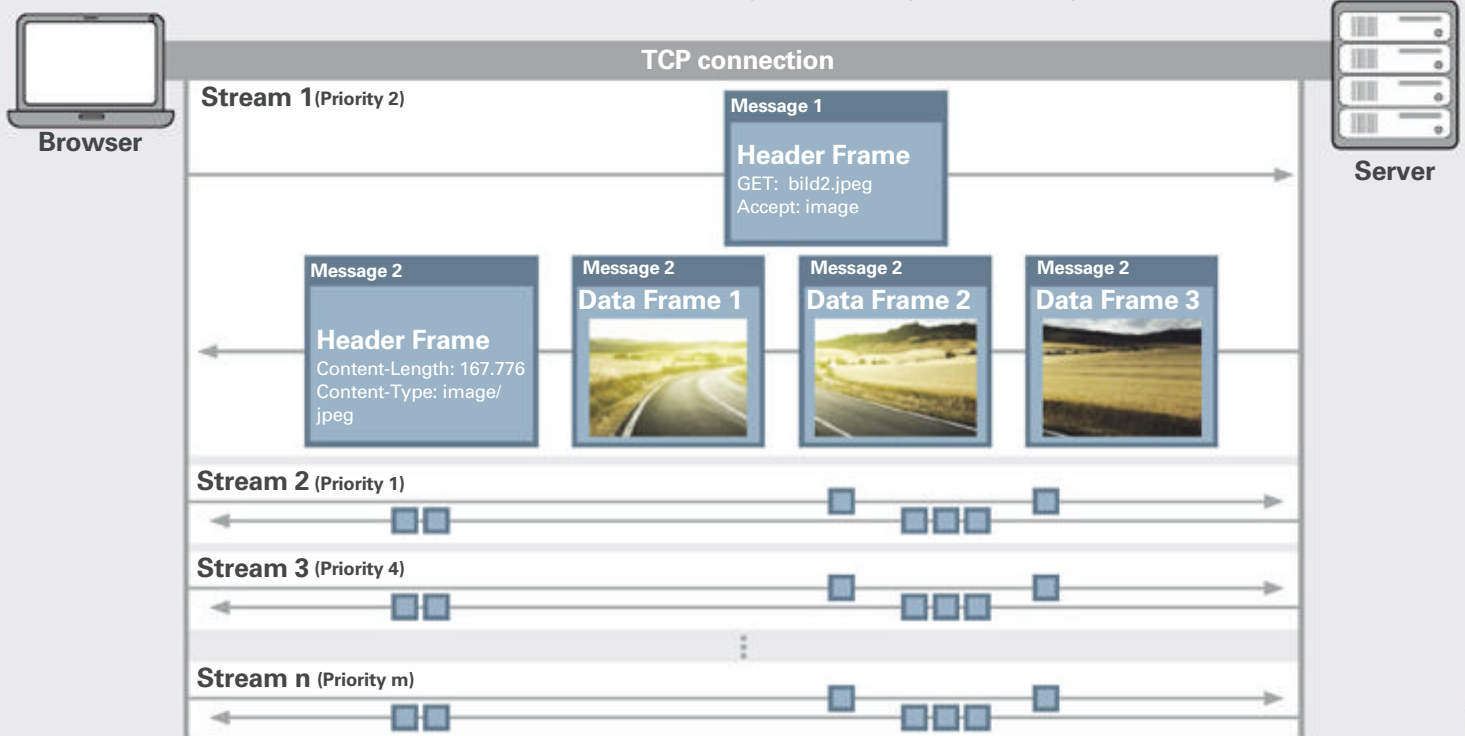
In the streams, all data is packed in messages, which in turn are divided into several frames (see below). Every message starts with a header frame, followed mostly by several data frames. All frames of a message are sent individually. Each messages transmit files, requests or information. As a result, one message can only contain one frame which has the priority level of the stream. For exchanging information, the HTTP/2 standard has defined dozens of frame types, which regulate the data flow – for example the server announcement of a data push (Push Promise) or the message that the browser is used to full capacity and can no longer manage more streams (Go away).

Leave out what is not required

Headers in HTTP 1.1 take up relatively more space – 500 to 800 bytes per transmission. To add to this, the header size quickly grows to several kilobytes if they contain cookies. This is an excessively large overhead, especially for objects such as icons or banners which themselves can be as big as a few kilobytes. Moreover, HTTP headers rarely contain any new information – as a result, the information about address, date or connection is made redundant because the browser and server already receive this information when the first contact was established. Additionally, headers are sent in the text format and are not compressed; this again takes up more space than is required. HTTP/2 headers on the other hand are compressed and transmitted in a binary code. In a binary code, it is stipulated which bytes contain the individual header information. Software can therefore analyse them more easily. HTTP/2 also weeds out any possibility of redundancy; browsers and servers maintain a table for the already received header information. In the new header frame, they only send the

How HTTP/2 transmits data

HTTP/2 sorts the data and sends it in both directions at the same time via virtual streams, browsers and servers exchange. All files, commands and information are sent in the form of messages, which in turn are divided into frames. Every stream receives a priority level; important data are prioritised.



missing information.

It would be years before this HTTP/2 technology becomes the norm on the net, but the implementation is progressing rapidly. Google is currently at the forefront; the web company had initiated development in the direction of HTTP/2 since five years back. It had introduced a protocol called SPDY (pronounced as speedy), which now forms the basis for the current HTTP/2. In 2013, the Internet Engineering Task Force (IETF) took SPDY 2.0 as a template for the first draft for HTTP/2. The IETF then released Draft 15 for HTTP/2 in November 2014. The final version will be submitted by early 2015.

All popular browsers have kept pace with this development (see right). If you surf with the latest Chrome or Firefox version, you automatically use SPDY and you can activate HTTP/2 Draft 14. Microsoft reserves HTTP/2 for Internet Explorer 11 in the Windows 10 preview build. Other Windows versions will get a Microsoft browser with HTTP/2 starting from Internet Explorer 12. After a long time, Apple has finally implemented at least SPDY in Safari 8 because many popular web services are planning to implement the new HTTP/2 or, services like Twitter, have already done so.

Automatic upgrade to HTTP/2

However, not many servers have switched over to HTTP/2. As a result, browsers with activated HTTP/2 uses HTTP 1.1 in a backward compatible mode. Currently, the browsers use only one encrypted HTTPS connection for the upgrade request to activate transmission via HTTP/2 with Application Layer Protocol Negotiation (ALPN). If you already use HTTP/2, you are already surfing faster and safer. Since the new protocol will also be used for unencrypted connections in future, more and more browsers could use an upgrade mechanism that is already provided in the old HTTP 1.1. In this, the browser sends a request to change the HTTP version in the HTTP header of the first request. If the server accepts the request, it automatically switches from HTTP 1.1 to HTTP/2.

In case of the server implementation, the big and popular web services forge ahead from the smaller sites on the web. Apart from Google, Twitter and Facebook have also already implemented HTTP/2 (see right) or at least the current SPDY 3.1 protocol. HTTP/2 is not only advantageous to users but also reduces server load, as servers are no longer bombarded with a large number of additional TCP requests. HTTP/2 implementations are also available for widely used server systems such as Apache or Nginx, which are available as Open Source. The next Java version too will have HTTP/2.

As a user, you can also check whether the requested data is sent via an HTTP/2 or SPDY connection. You only need to start the developer tools of your respective browser when retrieving a website and take a look at the data transmission analysis. However, users can't really experience the full speed-advantage of HTTP/2 as of now. Programmers need to first migrate their websites to the new protocol. Today, commercial websites load a lot of code from different external sources and a new TCP connection is built for every source. Website optimisation is still work in progress at this stage. But this is not surprising - an event that is as big as the switch to HTTP/2 has not taken place for a long, long time. 📌

All standard browsers are HTTP/2-enabled

Chrome and Firefox have implemented HTTP/2, but not activated it as yet. IE users are waiting for Windows 10 and Apple has only integrated the preliminary version, the Google protocol SPDY.



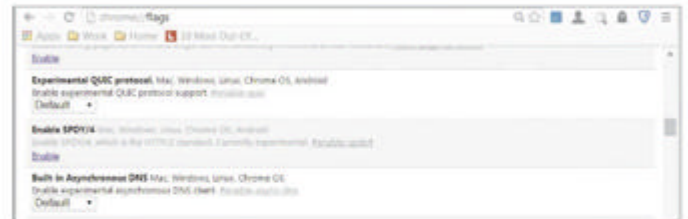
HTTP/2 implemented	■	■	■	■
From browser version	11 (in Windows 10)	29	28	8
HTTP/2 version	HTTP/2*	HTTP/2*	HTTP/2*	SPDY 3.1
HTTP/2 activated	■	□	□	■
TLS encryption	required	required	required	required

*DRAFT 14

■ YES □ NO

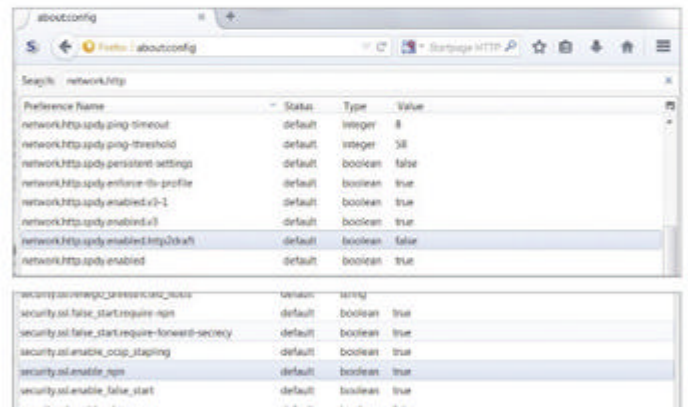
Enabling Chrome for HTTP/2 with a click

The activation for the Chrome browser is located under SPDY/4 in the "chrome://flags". Google uses the term SPDY/4 as a synonym for the new HTTP/2 protocol.



Two changes activate HTTP/2 in Firefox

Like other browsers, Firefox uses HTTP/2 via encrypted HTTPS connections only. This is why one should enable "ssl.enable_alpn" along with "http2.draft" in the Mozilla browser.



Websites with the new Internet protocol

Google, Facebook and Twitter have already been using SPDY for a long time and will now switch to HTTP/2. The Firefox console shows whether a page is HTTP/2-compatible or not; if it is, then the header shows the version HTTP/2.0.





Make Your Old Phone As Good As New

Insufficient memory, long charging times, and stubborn apps - older smartphones can be quite problematic. This is how you can make your mobile phone faster and more stable

By Frederik Niemeyer

Mobile phones age quite quickly. A freshly-installed system will run as smooth as silk. Animations executes elegantly, the charging times are short, applications are stable, the battery service life is in order and storage space is available in spades. However, after several apps have been installed and uninstalled, firmware updates have been run and the device has been subjected to sustained use on a daily basis, your pride and joy will start to stutter. It complains about insufficient storage space, hangs in the middle of operations and ceases to be an enjoyable device. The change from a high-end accessory into an outdated gadget is as steep as it is relentless.

Thankfully, the collapse isn't irreversible. Instead of spending hundreds of ringgit on a new device that may eventually run into the same problem, you can use a few simple tricks to get your old

smartphone going again. This article will tell you how you can release memory space, reset unstable apps and accelerate your system by tweaking it and implementing certain tuning measures.

We are focusing on the Android operating system as it is the most widely-used system. It has the lion's share of problems, but also offers you many options to whip it into shape. However, the article also contains a few useful tips for Apple users. We're starting out with clean-up operations that anyone can execute, before moving on to effective professional measures that reach deep into the OS. In some cases, you will need root privileges in order to be able to implement these measures. Information regarding how these privileges can be obtained can be found at the XDA Developers Forum.

Purge your Android

Old smartphones usually contain a large amount of unnecessary data, which takes up memory space and slows down the system. This is how you can clean up your old android device.

1 Re-start the device

When it comes to getting rid of minor bugs, a reboot is the first and simplest step. Mobile devices often remain in operation for months at a time without ever being re-started. This can lead to unseen problems. When the device is in operation, it collects temporary data that takes up memory space; the working speed starts decreasing, and in some cases, programme segments hang in the middle of an operation and end up generating error messages. You can access the power menu by holding down the power key for two seconds, and depending on your device, select the reboot option. If your Android mobile phone has stopped working altogether, you can re-start it by holding down the power key for ten seconds.

2 Uninstall unnecessary apps

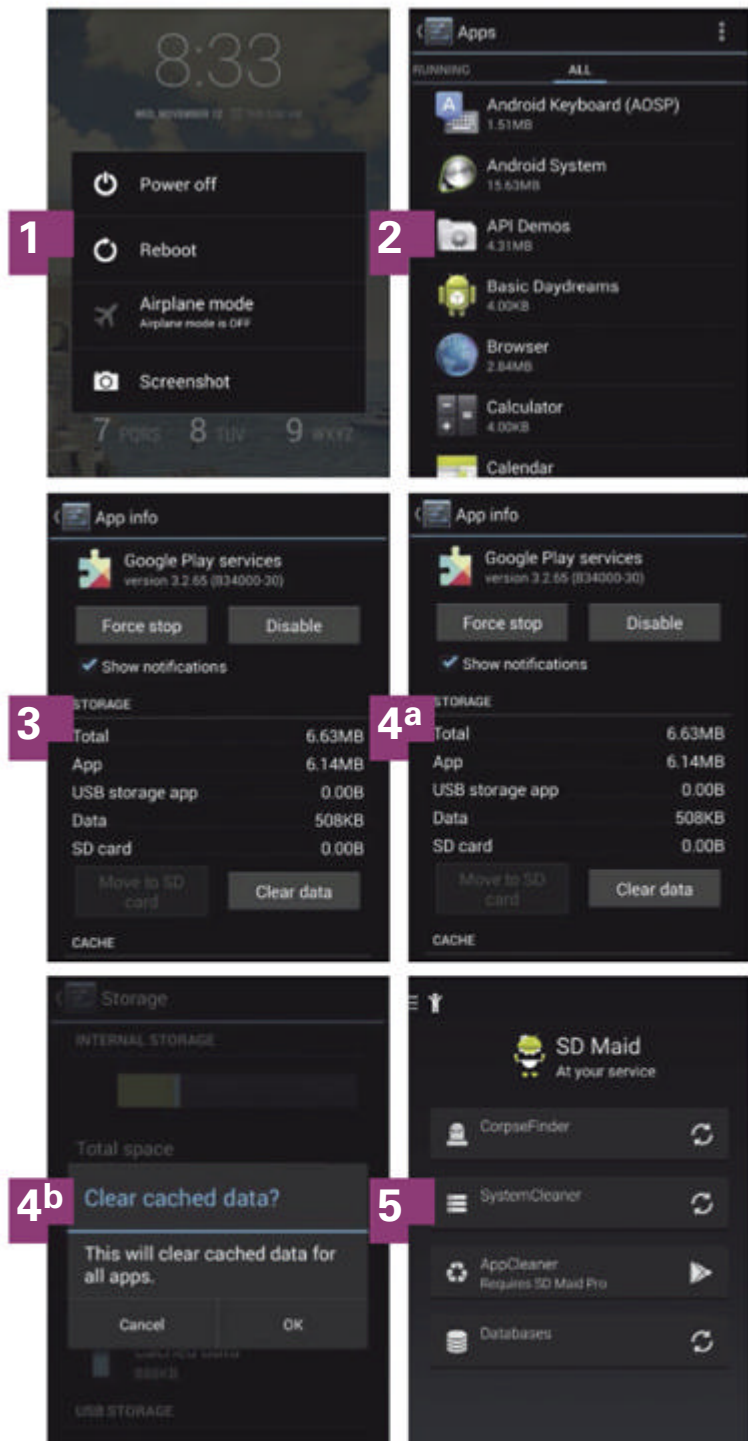
When your system starts complaining about a lack of memory space, you should delete unnecessary data. You can find out the extent to which your Android system is being loaded by accessing "Settings | Storage". Here, Android lists the various media types available and provides you with information regarding the storage space that is being used. If you want to delete an app, click "Apps" in order to access the list of all installed programmes. Swipe horizontally to switch over to the "Downloaded" tab (far left). This tab shows you how much memory space is being occupied by every single app, and allows you to delete unnecessary programmes. All you have to do is tap the respective entry and select the "Uninstall" option.

3 Deactivate system apps

Pre-installed apps usually cannot be uninstalled. However, you can deactivate and hide them instead. In addition to providing you with a better overview, this can also rectify certain problems - in particular, Google Now (integrated into the "Google search" app) which occasionally eats a lot of the battery power. This is how you can deactivate the search widget and Google Now: Use the "Settings | Apps" menu, then switch over to the "All" tab. Now, scroll over to the "Google search" option and tap the respective entry to view the "App info". If you are unable to "Deactivate" the app directly, you will have to "Uninstall updates" before you deactivate the app. If you need to use a deactivated app, it can be activated under "Settings | Apps | Deactivated | [App name] | Activate".

4 Reset/delete app cache files

The app info section provides more options for purging the Android system. Certain apps create cache data, such as



thumbnails. In principle, a cache helps to speed up the system access. However, if it becomes too large, it may end up having the opposite effect instead. You can use the app info section for a given app to "Empty the cache" (4a). The app will then create a new cache the next time it's launched. You can delete the cache for all the apps under "Settings | Storage | Data in the cache | OK" (4b).

The "Delete data" option that can be found in the app info section takes you a step further. This option enables you to completely reset an app. Using this option deletes all the data

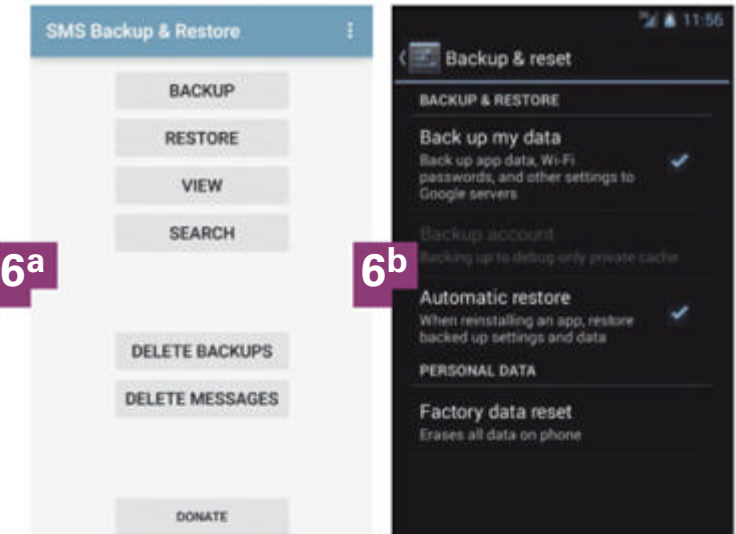
that is saved in the programme and resets the app to its original state. This option can often be used to repair apps that are no longer working properly. It also frees up a lot of memory space.

5 Use special apps to clean up the system

The clean-up operation can be simplified even further through the use of specialised cleaning apps, which, among other things, find and delete seldom-used database entries and cache files. If desired, they can also be made to do this in the background on a regular basis. One of the best clean-up app is SD Maid. The app is available in a free standard version, as well as an expanded pro version that costs RM 8. The pro version can also clean up apps and automate the deletion function. For the most part, SD Maid is self-explanatory. The start screen enables you to find and “Purge” unnecessary data. What’s useful is that even the free version of SD Maid offers expanded functions for users with root privileges. These expanded functions allow you to subject the internal memory to deeper system clean-up operations.

6 Secure the data and restart the system

A factory reset is the most thorough clean-up measure for your device. It enables mobile phones that have been used for two or more years and which have gone through a few system update procedures to make massive gains in terms of their performance and storage. However, since the mobile phone clears the entire memory, you should secure your important data before you implement a factory reset operation. The free SMS Backup & Restore tool can be used to save SMS messages (6a). Select the “Back-up” option in the app and place the data in a user-defined folder. After you have created copies of the important pieces of data, connect your mobile



phone to the PC and download them. The photos and videos can be found in the “DCIM” folder.

You can use the ‘Helium Backup’ back-up app to secure the data associated with all the apps. The fewer fragments of the old system you restore later, the more sustainable the system clean-up operation is.

Now, execute a factory reset. Navigate to the “Settings | Back up and reset” option on your mobile phone and select the “Restore factory settings | Reset telephone” option (6b). If the respective option is available, you should also clear the SD card. After the system has been restarted, copy the back-up data, install your important apps and restore the back-up using the tools that you used to create it. To restore your SMS messages, access SMS Backup & Restore and select the “Restore” option. Your mobile phone will now be faster than before.

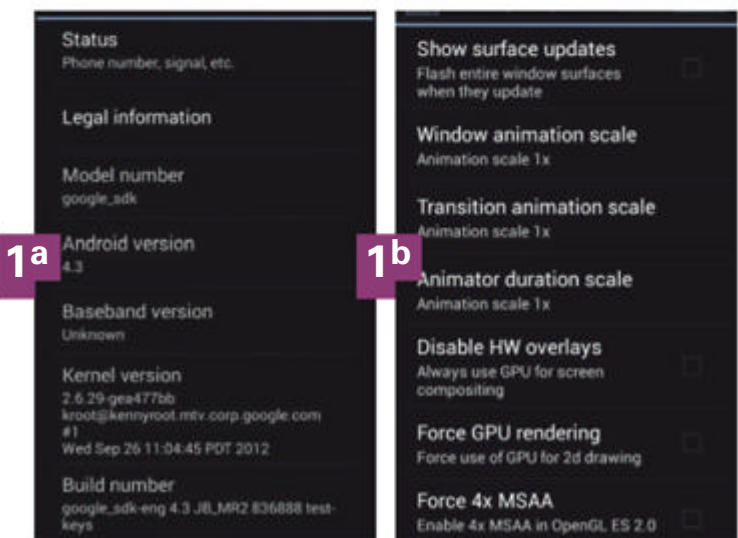
Tune up Your Android

In order to ensure that your Android is always up to speed, you should not only delete data leftovers on a regular basis, but also disable elaborate graphic options and implement certain tuning measures.

1 Deactivate animations and widgets

It’s worthwhile to select a static background instead of a moving one. Doing so improves the system’s response time and the battery service life. You should also minimise the use of widgets (i.e. the interactive windows on the home screen), which means that you should remove unnecessary elements.

If you wish to make deeper changes, you should deactivate



system animations. First, activate the “Developer options” by navigating to the “Settings | About device” section and tapping the “Build number” option seven times in a row (1a). Now, under “Settings | Developer options”, deactivate the “Scale” for window animations, transition animations and the

animation duration (1b).

2 Transfer apps to the SD card

If your mobile phone's internal memory is full, it would make sense to transfer your apps to the SD card. If the mobile phone and the app support this option, you will be able to find the respective function in the Android settings menu ("Apps | [App name] | Transfer to SD card"). Unfortunately, only certain applications can be transferred. Furthermore, the operation often only copies part of the data – the main program still lives in the phone memory.

The other options are only available to users who have root privileges. If you have root privileges, you can use the useful FolderMount tool to transfer the folders of your choice from the internal SD memory to the external one.

3 Regulate the apps' auto-boot facility

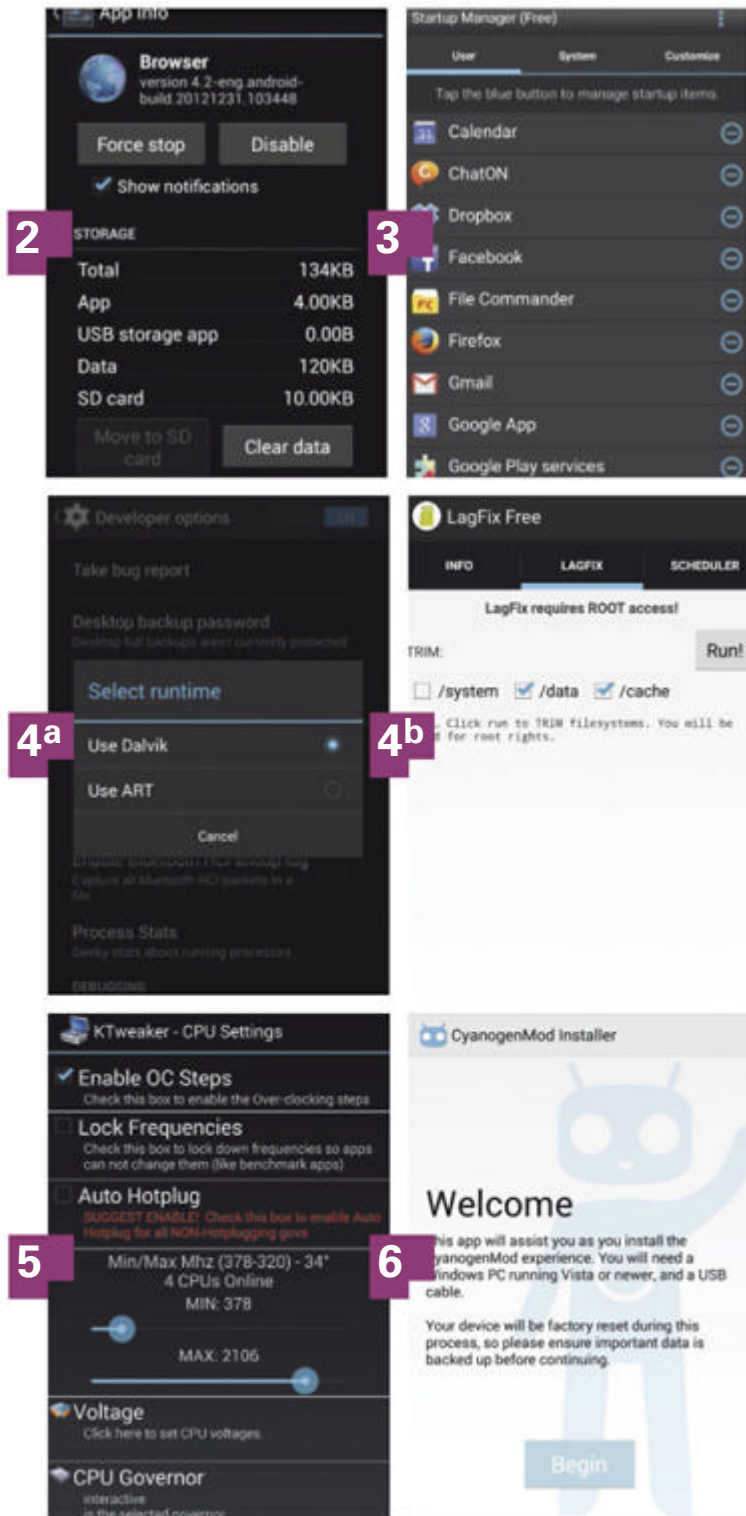
The free Startup Manager app is a useful tool for speeding up your system's start-up process: This tool enables you to regulate your Android applications auto-boot process. Startup Manager lets you prevent unwanted apps to start up during the booting process. The app is quite easy to understand: The "User" and "System" tabs allow you to specify the apps that are not to be loaded when the system is started up. All you have to do is tap the minus sign. The "Customise" section allows you to specify the applications that are to be loaded automatically during the start-up process.

However, Startup Manager needs root privileges in order to be able to regulate all the apps (including system apps).

4 Activate the new ART and Trim features

Those who are using the Android 4.4.4 operating system and are happy to try out new things can also optimise the execution speeds of their apps. In order to do this, access the developer menu and select the faster ART system (which is part of the standard package in Android 5.0) instead of Dalvik, under the "Set runtime" section (4a). When the ART system is selected, apps run faster, but they also take up a larger amount of memory space. Caution: Under Android 4.4.4, ART can cause certain apps to crash more frequently.

Experienced users should also make use of the so-called 'trim' function, which ensures that the memory speed remains at a high level. Google first introduced the trim function in Android 4.3. If the device remains in the sleep mode for more than an hour when it is connected to the charger or has a fully-charged battery, new Android versions automatically clean up the Flash memory. Those who use Android 4.2 or an older version of the same operating system who want to avoid slumping transfer rates and slower access times must root their mobile phone and manually install the trim-driver. This can be done with the help of the LagFix (fstrim) Free (4b) app. Since it can be risky to use this tool, only experienced users should give it a try. However, the tool does significantly boost the performance of several devices.



5 Overclock or underclock the processor

A higher speed can also be attained through the use of so-called 'custom kernels'. A kernel represents the heart of a piece of firmware, and controls important system functions such as the clock rates of the CPU. You can overclock or underclock the CPU for higher speed or longer battery service life respectively. In this manner, you can exploit the potential offered by your

old smartphone without having to install a new system (refer to point 6).

6 Install a new custom ROM

It would also make sense to install an alternative version of Android in order to freshen up your mobile phone. Custom ROMs like the Android Open Source Project (AOSP) are usually a lot faster than the bloated manufacturer-versions that contain unneeded apps. Another advantage of this option is that it enables you to obtain new Android versions even after the mobile phone manufacturer stops providing OS-related support. The most well-known custom ROM is CyanogenMod. The installer can be used to install the alternative firmware on supported mobile phones in a simple and automated manner.

Tweaking iOS

Even though installing system updates is quite advantageous in principle, iOS users shouldn't rush into upgrading to a new version as they come out. Although Apple updates compatible iPhones every two years, the new system updates are sometimes sluggish, as if they are not optimised for the old models. Consequently, it would make sense to obtain info online from other users after they have applied the update. If you want to switch back to the old version after you have already installed the update, you will only be able to do so a few days after the launch of the new OS version.

1 Forego the 3D effect

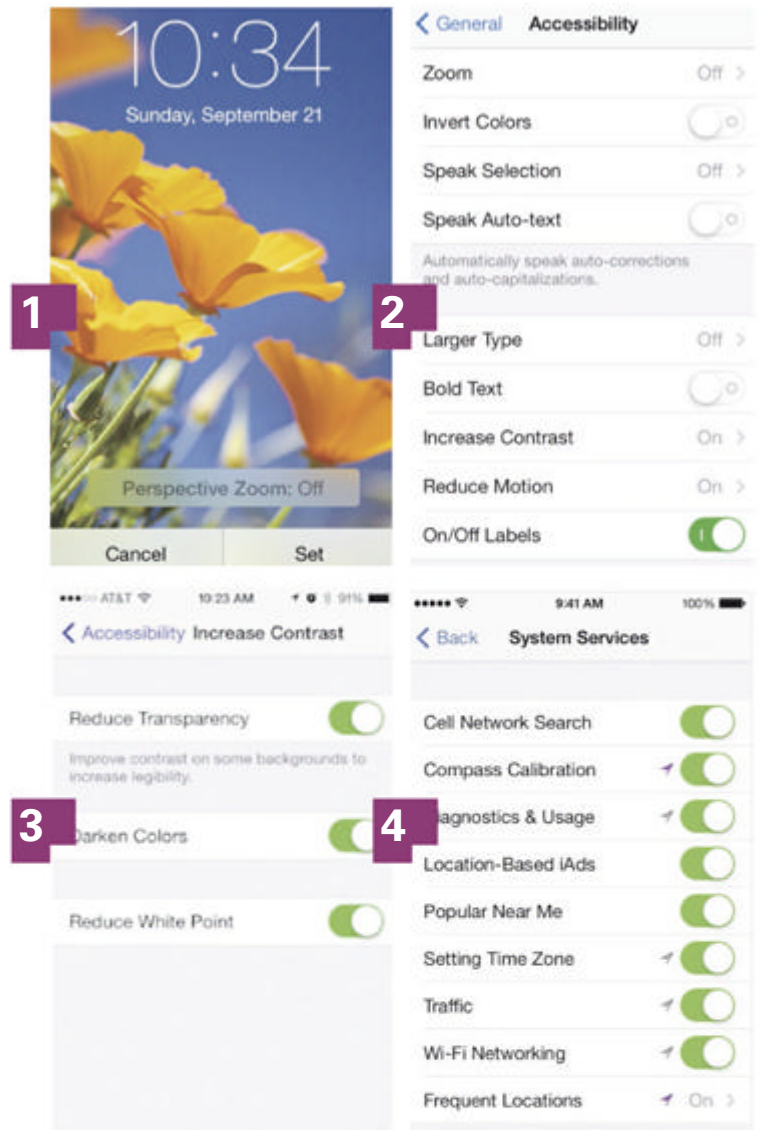
iOS doesn't exactly offer a lot of outlets for optimisation. However, you can deactivate a few graphics-related effects in order to speed up the system a little bit and go easy on the battery. Even in case of iOS, you should avoid moving background images and switch over to an "Individual image" under "Settings | Background image | Select new background". You should also deactivate the 3D effect of the iOS wallpaper. This can be done by using the "Perspective: Off | Save" option after the individual image has been selected.

2 Deactivate the parallax effect

The parallax effect makes the icons move along with the mobile phone. To deactivate this subtle effect, navigate to "Settings | General | Operational aids | Reduce movement" section and activate the corresponding option.

3 Reduce transparency

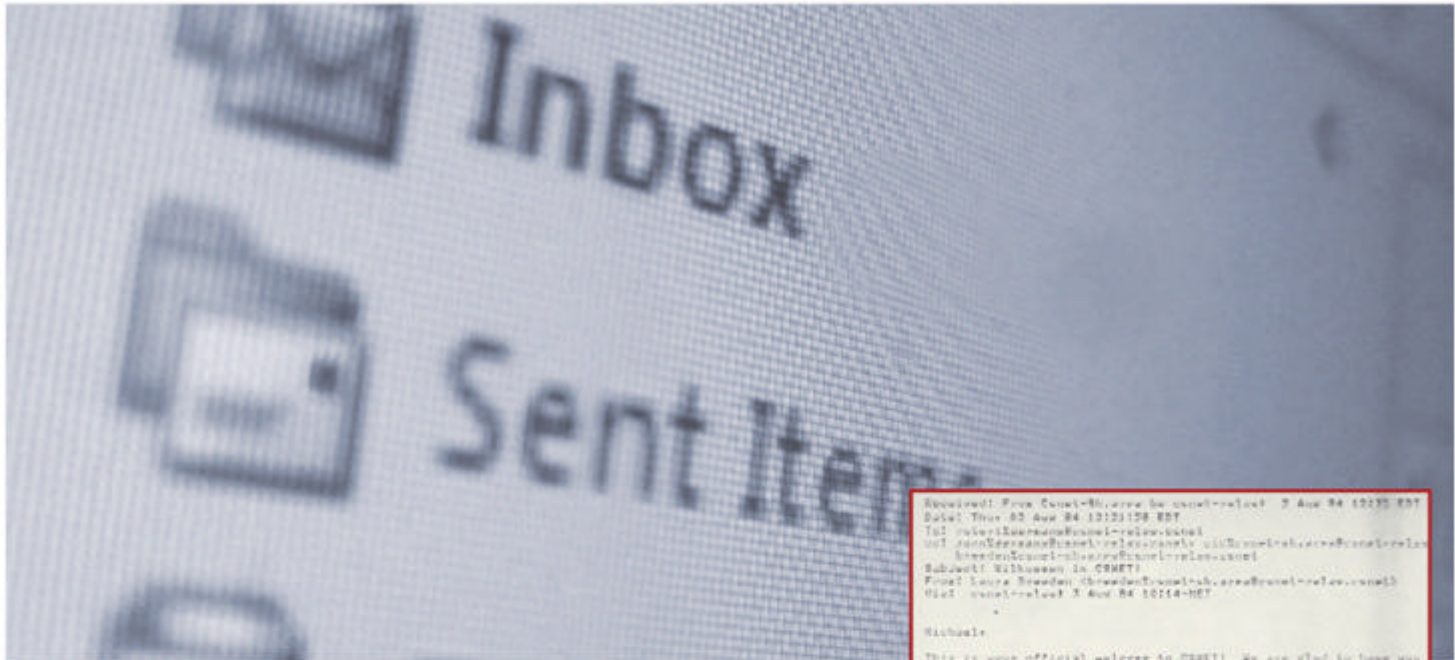
Now, deactivate the transparency effect that Apple uses, among other things, to embellish the quick-start menu at the bottom. Just like the parallax and 3D effects, the calculations associated with the transparency effect also come at the cost of performance. The transparency effect can be deactivated under "Settings | General | Operational aids | Increase contrast | Reduce transparency". You must activate the corresponding



option in order to deactivate the function.

4 Less multi-tasking

If you are using iOS 7 or 8, and your battery cannot hold out for as long as it originally did, you should deactivate the function that updates certain apps in the background. Otherwise, all the programmes will keep obtaining data from the internet at will, thereby consuming battery power. To deactivate the function, navigate to the "Settings | General | Background updates" section and deactivate the corresponding function. The function can be deactivated for individual apps or for the entire system. Energy can also be conserved by preventing the apps from accessing the GPS function. This can be done under "Settings | Data protection | Positioning services" section. In order to conserve the battery and simultaneously limit the system's user tracking facility, you should navigate to the "System services" section and deactivate the "Location-dependent information", the "Location-dependent iAds", the "Frequent locations" facility and all the functions under "Product improvements".



Email

In the Internet age, emails became the absolute means of communication. But the daily mail flow continues to grow unstoppably even in the times of WhatsApp, Facebook & co. By Dominik Hayon

Received: From CSNET-Worms [cs-net-relay] 3 Aug 84 10:14 EDT
 Date: Thu 03 Aug 84 10:13:58 EDT
 To: robert@germany-relay-net, zorn@germany-relay-net, zorn@germany-relay-net, zorn@germany-relay-net, zorn@germany-relay-net
 Subject: Welcome to CSNET!
 From: Laura Swaden [swaden@cs-net-relay, cs-net-relay, cs-net-relay]
 Via: cs-net-relay 3 Aug 84 10:14 EDT

Richard:

This is your official welcome to CSNET! We are glad to have you aboard, I gather that you and Ben were able to talk about some of the details of your implementation of the Paris conference. Ben also said you were interested in CSNET's architecture (like k-shell). If I can come up with some slickers (about the only thing we have) I will send them.

I am going to send you a series of informational messages about using CSNET's included instructions for finding your way around the Internet. Please let us know if you have any questions.

Because some sites act as forwarders or have other internal concerns, we ask you also to confirm that they are ready before we enqueue them in the rest of CSNET. In your case I would also like to include some information about BBN in the announcement (what links are on its how to reach them via your host). From your email address it looks as though your VAX is the only machine able to send and receive CSNET mail.

For the announcement I will also want to be sure that the information on the site about is correct and complete. We show the following for you:

administrative liaison: W. Zorn (zorn@germany)

Year in which the first email was sent (at that time in ARPANET)	1971
Time when the first email in Germany was opened	3rd August 1984, 10:14 hours
Recipients of the first email in Germany	rotert@germany & zorn@germany
Subject of the first email in Germany (not a typing error!)	"Welcome to CSNET!"
Preparation time for the receipt of this email	1 year
No. of email users worldwide	2.5 billion
No. of private emails that are sent every day	87.7 billion
No. of business emails that are sent every day	2.5 billion
No. of emails sent per second worldwide	108.7 billion
Revenue from the email business in 2014	43 million ringgit
Day on which the first spam mail was sent	3rd May 1978
No. of recipients of the first spam mail	600
No. of spam mails annually received by Bill Gates as early as in 2004 according to Steve Ballmer	4 million
Estimated costs incurred annually across the globe due to spam	237 billion ringgit
Estimated annual turnover of spammers worldwide	657 million to 1.4 billion ringgit
Percentage of spam mails in the overall mail traffic	87.1 to 90.2 percent
Year in which mail usage on mobile devices overtook that on the desktop	2013
Most popular email client	iOS mail app
Day on which the first email was sent from space via AppleLink	9th August 1991



Eight Brilliant Hardware-hacks

Routers, TVs, digicams... many devices contain deactivated functions. CHIP shows you how to re-activate these – and tells you how far you are allowed to go By Jörg Geiger

Those who like to tweak their devices can enjoy additional functions, at no extra cost. This can be done with just about any device, whether it be a router, CPU, NAS, smartphone, Apple TV or even a Kindle. In principle, every firmware update carried out by the manufacturer represents a legal hack. However, those who use jailbreak operations and experiment with alternative firmware that doesn't come from the manufacturer will forfeit their

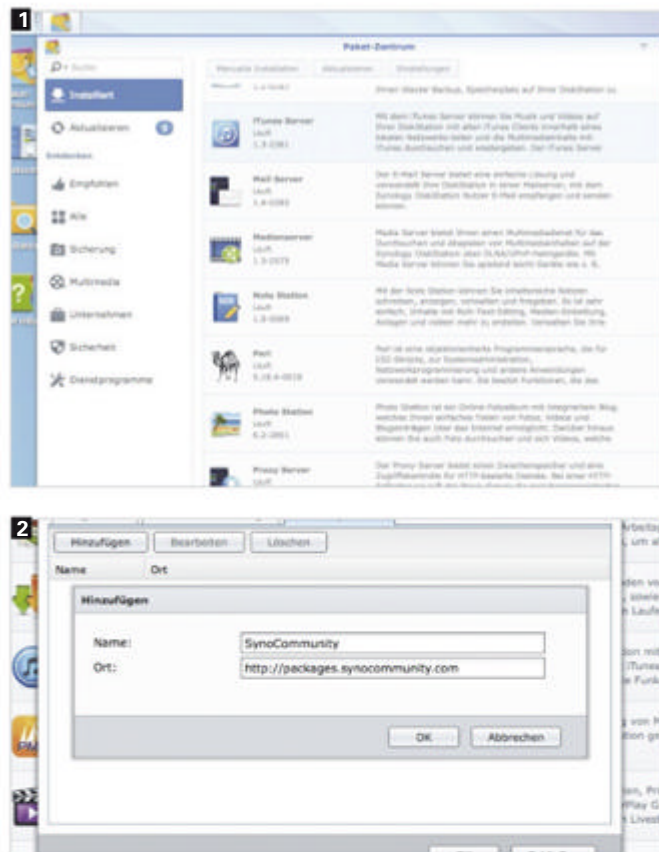
warranty. Many manufacturers point this out in their complex user agreements. However, this legally-mandated, two-year long warranty isn't automatically nullified by hardware-hacks. Nevertheless, retailers assume no liability for defects that are caused by a jailbreak operation. We have here eight great hardware hacks, and at the same time we will also tell you how legal some of these hacks are.

Upgrading NAS



Many users simply use their NAS drive as a storage device. While there's nothing wrong with that, the devices can do a lot more. Synology is splashing out on several official software packages that you can use to expand your NAS drive. You could, for example, use such packages to turn your NAS drive into an iTunes or VPN server. In the Disk Station Manager (which is the administration software for your NAS), you can install these components through the package centre **1**. Although Synology is doing quite a good job, there is also an active community that provides an even greater number of software packages. In order to access these unofficial software programmes through your NAS, you will have to integrate additional package sources into the system. All you have to do is access the package centre and click the "Settings" and "Package sources" options. Select the "Add" **2** option, and assign a name to the new package source. However, it's more important to ensure that the link is the correct one. A list of alternative sources that also contains brief descriptions can be found at forum.synology.com/wiki/. New packages pop up in the menu, under "Community Forum".

Legality 
Feasibility 



Printer-reset



It's the same old business model: Printers are as inexpensive as ever, while ink and toner are unreasonably expensive. The manufacturers introduce several technical hurdles into the equation in order to ensure that their customers stick to using original accessories. For example, instead of acting in accordance with the fill level measurement, the system reports that the cartridges and toner reservoirs are empty as soon as an internal counter reaches a specific threshold. Consequently, if you reset this counter, you will be able to print several pages without replacing the cartridge or replenishing the toner. In addition to the professional resetters **1**, there are measures that you can implement independently for several printer models. A quick search on Google for "Reset Printer cartridge" will return a smorgasbord of relatable content. In case of certain printers (such as those manufactured by Canon or HP), the reset operation is executed directly on the device itself. In other cases, it has to be done using a software application. The free SSC Service Utility tool can be used to reset older Epson devices: All you have to do is click the icon in the Systray, go to "Reset counters" and select the "Reset all counters" option **2**.

Legality 
Feasibility 



Overclocking the CPU



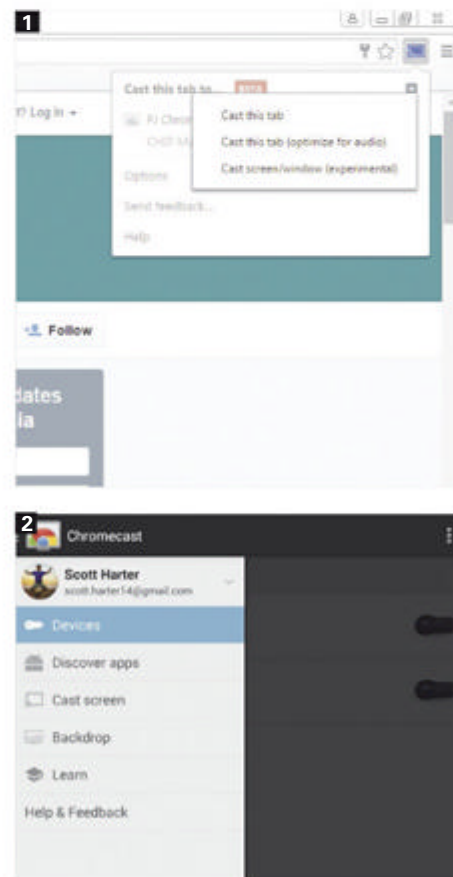
The act of overclocking the CPU is a standard-hack that power-users have been using for several years to obtain more computing power at no extra cost. However, sayings like “You can always squeeze an extra 10 percent out of it” do not apply to all scenarios. When it comes to overclocking operations, tact is required. First of all, you should create a backup for your data. Furthermore, you should also consider the fact that there is a risk of the CPU being destroyed altogether. However, if you do it right, you can increase the performance by up to 20 percent. The first hurdle is that manufacturers do not allow all CPUs to be overclocked, only certain models. For example, if you have an Intel CPU, you can use the free ‘Intel Extreme Tuning Utility’ tool to find out whether or not your CPU can be overclocked. If the entry “Turbo Overclocking=False” is visible under “System Information”, it means that the CPU in question cannot be overclocked **1**. Previously, the operation revolved around the base clock pulse. This produces unpleasant side effects, as the clock pulse influences almost all the other components of the PC. It makes more sense to carry out an operation involving the multiplier for the CPU cores. The Extreme Tuning Utility accomplishes this task via the “Manual Tuning” and “Multipliers” options **2**. **Caution:** Ensure that you only raise the value by one level, and then subject your system to a stress test.



Connecting a TV to a PC, Tablet and Mobile Phone



When it comes to several devices, you can draw on the resources of firmware hackers. The community is quite active, and they use elaborate tricks to enhance the range of functions of the respective hardware. However, these tricks cannot be used on smart TVs, as the software that is used in such devices is kept under wraps by the manufacturers. Furthermore, every manufacturer sets up a new world with each new series of models. Except for isolated projects that are very elaborate (such as samygo.tv for older Samsung TVs), there are no universal firmware hacks. However, our hack involves the use of the Chromecast HDMI stick to expand your TV's range of functions. This enables you to connect the TV to a PC, a tablet or a smartphone – without having to pull apart the TV. To set up the connection with the PC, you will have to procure the Chromecast stick (about RM143) and the Google Cast extension for the Chrome browser. If the PC and Chromecast are part of the same network, click the “Google-Cast” option in the browser (in the tool bar) – your Chromecast should then appear as the target entity. In the upper right section, there is a small tick mark in the respective drop-down menu. Click it, and select the “Transfer entire screen” option **1**. This streams the computer-desktop onto the TV screen, which in turn enables you to use all the programmes in conjunction with the TV. For example, you can view videos whose formats are not supported by the TV, or use your browser to surf when you're on the sofa. If the situation involves a mobile phone or a tablet, you can stream contents through the stick using the free Chromecast app for Android and iOS. The entire screen of the mobile phone can only be beamed to the TV with selected Android smartphones such as the Nexus 5. To do so, access the Chromecast app and use the “Cast Screen” option **2**. “Backdrop” is another cool function offered by the app. It enables you to modify the background displayed by Chromecast and use the TV to display additional information such as a weather forecast. In addition to the direct interaction involving the PC, the tablet and the mobile phone, you can also use apps that are optimised for Chromecast to endow the TV with additional features. The site google.com/chrome/devices/chromecast/apps.html has more information for Chromecast. For example, this site provides applications for the Netflix and maxdome video streaming services, as well as applications for media libraries or music services.



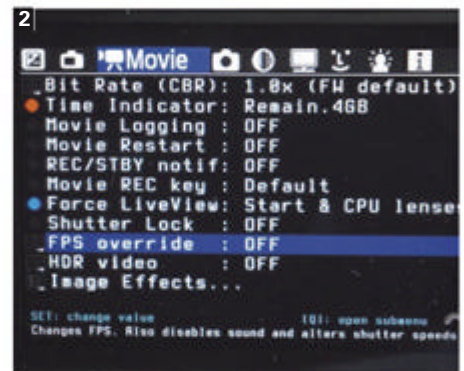
More Functions for the DSLR



Canon DSLR cameras can be hacked using the free Magic Lantern tool. You can use this tool to activate hidden functions such as the functions associated with focus-peaking, RGB histograms and special video modes. A list of supported camera models can be found at magiclantern.fm. This is how it's done. You are not actually flashing the firmware. Instead, all you have to do is copy the tool onto the memory card of the camera. In order to ensure that this works, you should format the memory card in the camera (save the images first!) and extract the Magic Lantern tool onto the PC, i.e. onto the memory card. Once the card has been re-inserted into the camera, switch it on and press the menu key. Scroll up to the last settings menu (which is in the form of a screw head), and go to the entry bearing the firmware symbol. Click the "Set" button for the software-update process. A renewed confirmation initiates the update procedure. Leave the camera alone for about ten seconds, until the green caption "SUCCESS!" appears on the screen **1**.

Deactivate and reactivate your DSLR. Magic Lantern is now ready for use. For example, if you press the delete key in the photography mode, this opens up the Magic Lantern menu which offers you a variety of settings-related options **2**. The English-language user interface contains self-explanatory points for photography fans, along with additional descriptions that can be found in the lower part of the display. For example, "Overlay" contains visual displays such as "Focus Peaking" and "Zebra-Warning". The "Shoot" section can, among other things, be used to activate HDR exposure latitudes or define independent shutter speeds. In the "Focus" section, the "Trap Focus" sub-module allows you to set up a focus trap that gets triggered as soon as the motif is sharp. The hack-software is activated along with the camera itself. However, the memory card containing the Magic Lantern data should remain in its slot, otherwise the camera will not work. If you want to get rid of the hack, just call up the firmware menu and update the system software. After the "SUCCESS!" screen appears, adjust the mode dial and wait for the message that says that the boot disk has been removed.

Legality 
Feasibility 



Apple TV Jailbreak



Along with iPhones, one can also free Apple TV boxes from the grip of the manufacturer. If this is done, software that has not been officially approved by Apple can be installed. For example, one can turn the box into a full-fledged media centre by equipping it with XBMC. The bad news is that the latest third-generation Apple TV cannot be cracked; this is one reason why second-generation Apple TV boxes sales are doing so well on eBay. We recommend using the "untethered" jailbreak, which can even withstand a complete reboot of the Apple TV. Boxes that can be hacked bear the model number A1378 on the bottom side. Alternatively, you can refer to the "Settings | About" section on the Apple TV. If the "TV resolution" is '720 p, 60 Hz', the jailbreak operation will work **1**. The second hurdle is the installed Apple firmware. The latest version (i.e. version 6.2.1) for Apple TV 2 cannot be hacked. If you are using this firmware, you will have to downgrade it. An older firmware system can be obtained at ipsdownloader.com. We recommend downgrading to version 5.3. In order to carry out an Apple TV hack, you will also need the latest iTunes system and the free SeasOnPass software. You will also need a micro-USB cable to connect the Apple TV to the PC. Install iTunes, launch SeasOnPass and select the "Create IPSW" option. The software will then ask you to connect your Apple TV to the computer **2**. **Important Note:** Do not connect the power cable of the Apple TV. SeasOnPass should automatically detect the system in question. The LED on the Apple TV will then start blinking. Now, take the remote control of the Apple box and hold down the "Menu" and "Play/Pause" buttons for seven seconds; this switches the Apple TV over to the maintenance mode. If this doesn't work right away, re-connect the box. If the maintenance mode is detected, iTunes should start up automatically, obtain the required original firmware from Apple, modify it and activate the new firmware vis-à-vis the Apple TV. The message "Firmware Restore Successful" confirms the jailbreak. The Apple TV will then display a new icon for the settings menu.

Legality 
Feasibility 

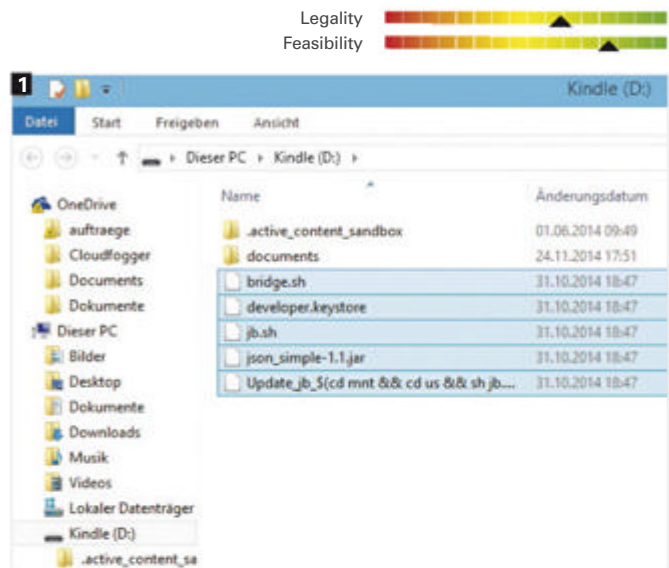


Hacking Kindle



Four of the top five e-book readers in the CHIP high score list are from the Amazon Kindle series. However, they don't have a lot to offer to users who want more functions and formats. In such a case, a jailbreak operation can help. However, the same rule applies to this case as well; A jailbreak nullifies the warranty. Apart from that, you have to know exactly which model you have, as the procedure is different for each Kindle model. First of all, look for the serial number of the Kindle: The number can be found through the "Settings" menu, which can be accessed via the icon with the three horizontal bars. In the settings menu, click this icon again and select the "Device info" option. The first four characters in the serial number are important. Use this information to look for your specific model on the site wiki.mobileread.com/wiki/Kindle_Serial_Numbers. For example, the characters corresponding to the first-generation Kindle Paperwhite (with wi-fi) and the Kindle 3 Wi-Fi are "B024" and "B008", respectively. The second important piece of information relates to the current firmware version, and is also listed under "Device info". For example, in case of our Paperwhite, version 5.4.4.2 is the version associated with the latest firmware. The corresponding jailbreak ZIP package, i.e. kindle-jailbreak-1.12.N.zip, can be found on the site mobileread.com. This package should be loaded on the PC and unzipped. Use a MicroUSB cable to connect the Kindle to the PC. The loaded ZIP package contains an additional ZIP package. Extract kindle-5.4-jailbreak and transfer the data contained therein into the

main directory on the Kindle **1**. Disconnect the Kindle from the PC, use the reader to switch over to the "Settings" menu and click "Update Kindle". A message confirming your jailbreak will appear in a few seconds.

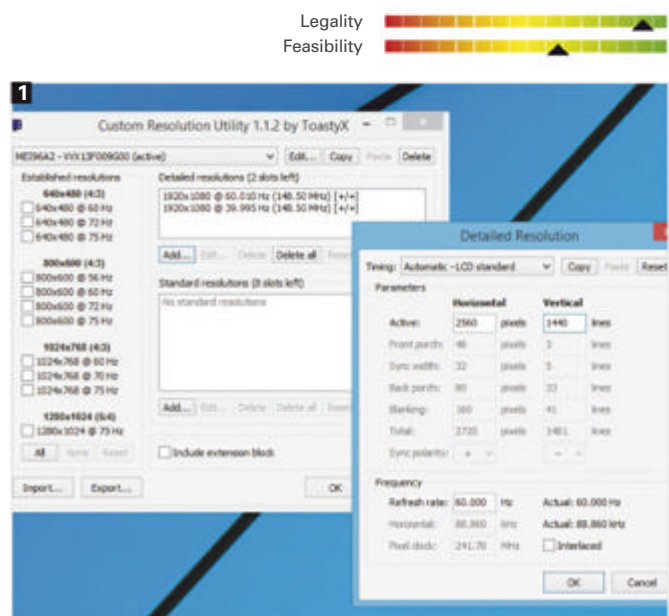


Increasing Gaming Resolution



Glimmering image lines and step-like formations in slanting lines are a nuisance – and not just in games. Super-sampling is the solution to this problem: The graphics card calculates a resolution that is higher than that of the monitor. Before it is displayed, the image is downsampled. This softens the edges and makes the image look more natural. AMD's Radeon drives offer this function under the moniker of 'virtual super resolution', and when it comes to nVidia drives, the function can be found under 'DSR factor'. In both cases, a powerful and modern graphics card is a pre-requisite. However, many LCD monitors facilitate the super-sampling operation without special drive-related functions; They automatically downscale excessively high resolutions. In order to exploit this function, the graphics card drive must be forced to display an excessively high resolution. The free 'Custom Resolution Utility' **1** tool can be made to carry out the required steps at the click of a mouse. This is how it's done: The monitor that is currently connected should be marked as "active" in the upper left part of the menu. If it does not appear automatically, select it from the drop-down menu. You will then be able to use the "Add" button to add higher resolutions. Now, you will have to run a test to find out which resolution is feasible for your system. Important You can set any resolution of your choice, but the technical limit is represented by what the game and the graphics card can yield and what can pass through the monitor

cable. In case of full-HD monitors with DisplayPort, this limit is often as high as 2560 x 1440 pixels. Just check whether the respective settings are feasible: The new resolution can only be used after the system has been re-started. If the resolution is too high, the screen will remain black. You can then use the safeguarded Windows mode to reduce the resolution. **2**



know the future

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cover story

build your own PC



No Fuss PC Building

For those who want computers that are tailored to their own needs, they should attempt to build them on their own. We explain the construction process in this simple to follow step-by-step guide By Christoph Schmidt

Building your own PC has its advantages. You decide how much money you want to spend on the components. Furthermore, you can select components that are perfectly compatible with each other. Your decisions don't have to be based on marketing-related factors, and you can set up a system that is totally devoid of bloatware. A self-built computer can also last longer, as you can upgrade it as and when you need it at a later date. Or, you can build a low-cost PC that will keep you satisfied instead.

This section will explain how easy to build a PC. The first step is to find the right components, which should be as inexpensive as possible. The CHIP recommendation (refer to the table below) is geared towards a simple assembly process, minor retrofitting operations and a future-proof performance level. At the same time we're also providing information for both a budget as well as a high-end system featuring the most powerful components that are currently available – which can be assembled using the same methods lined up here. Our standard CHIP PC is made up of the following components:

Miditower casing: It's hard to go wrong with the branded casings in the Miditower format, which are available at prices ranging from RM100 onwards. We selected the BitFenix Neos - the low-price case features a modest design, and yet has enough space for all the components to be assembled without any problems.

Motherboard with Intel 1150 socket: Intel's Haswell platform is the weapon of choice for a fast and efficient PC. There are a ton of 1150-socket motherboards available in the market to choose from. We ended up choosing a device manufactured by ASUS, the Z97-K. As far as the CHIP test centre was concerned, ASUS scored with its reliability, as well as the good driver-support and software support that it offers.

Processor: You can start out with an inexpensive chip and upgrade

to another one at a later stage with socket 1150. If you have the spare cash, we would recommend that you go ahead and buy the most powerful model that is within your budget – it will probably still be powerful enough even five or six years down the road. In fact, that's exactly what we did: Our configuration featured the standard version of the Core i7-4790. The performance of the included standard cooler that comes with the 'boxed' version is quite satisfactory.

RAM: The memory controller of Haswell CPUs supports DDR3-1600 in two memory channels. Consequently, the optimal configuration would feature two (or four) modules. Although an eight-gigabyte RAM is usually sufficient, we chose 2 8-GB modules (for a total capacity of 16 GB), which can eventually be upgraded to a total capacity of 32 GB through the use of two more 8-GB modules. We used devices made by Kingston, which is a renowned company for PC memory solutions.

SSD: An SSD is an indispensable component of a modern PC now. We chose to use the inexpensive and fast Crucial MX100, which is likely to be long-lasting, thanks to its dual-layer cells. Along with the SSD and the optical drive, the casing and the motherboard would accommodate up to four more internal SATA hard drives. Since the Asus Z97-K has an M.2-SSD slot, a turbo SSD (which is currently quite expensive) can be retrofitted at a later stage.

Miscellaneous: The RM89 LG drive is quite reliable when it comes to reading and burning DVDs. We use it to store large volumes of data on blu-ray disks and long-lasting M-disks. When it comes to the operating system, you should install a Windows 7 OS from your previous computer. If this OS is unavailable, you can get the OEM version for only RM 479. Win 7 is scheduled to keep receiving security updates until January 2020. If this time-frame makes you uncomfortable, you can acquire a Windows 8.1 OS at a similar price. It will be receiving the Windows 10 upgrade free of charge.

Assembly & Suppliers

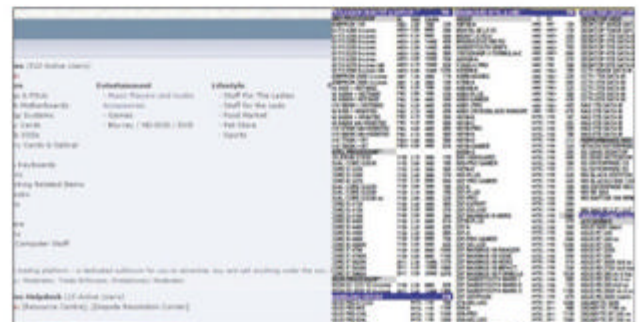
Our construction-related instructions uses the 'CHIP recommendation' PC parts list. The 'inexpensive computer' configuration costs about half as much, while the high-end PC costs twice as much as the middle child. Three different recommendations to fit most computing needs out there.

	BUDGET COMPUTER			CHIP RECOMMENDATION			HIGH END BUILD		
Casing	Bitfenix Neos	RM189		Bitfenix Neos	RM189		Bitfenix Neos	RM189	
Power Supply	Silverstone Essential	RM149		Silverstone Essential Gold 500W	RM329		Silverstone Strider Gold 650W	RM489	
Motherboard	ASUS A88XM-A	RM325		ASUS Z87-K	RM500		ASUS X99-A	RM988	
Processor	AMD A10 7700K	RM589		Intel Core i7 4790K	RM1,199		Intel Core i7 5820K	RM1,379	
RAM	Kingston Hyperfury 8GB	RM255		Kingston ValueRam 8GB x 2	RM480		Corsair Vengeance Pro 16GB	RM749	
Hard Drive/SSD	Seagate Barracuda 1TB	RM180		Crucial MX100 512GB	RM849		Samsung EVO 850 1TB	RM1,689	
Miscellaneous	DVD Burner drive	RM59		DVD Burner drive	RM59		DVD Burner drive	RM59	
Graphics Card	-			-			MSI NVIDIA GTX 970 Gaming 4GB	RM1,559	
Total		RM1,746			RM3,605			RM7,101	

- NONE

Availability: The components are available at online electronics shops or your favourite computer parts store. Do visit them to pick up the latest copy of their price list. If you are buying the individual parts from different suppliers online, you should be mindful of the shipping costs associated with each order. Due to the shipping costs and the complaints that may eventually

arise, we recommend that you order all the parts from a single supplier. While haggling for your parts is an old tradition to follow, make sure that your haggling is not to the extreme that you are fleeced by the seller in the end. Also, if you are buying from online sellers from forums, adopt a Cash on Delivery purchasing method as a safety measure.



PC ASSEMBLY: Step by step

It can be tricky to set up a PC, but follow our guide, and it is child's play

1 Preparation

You will need a clean and well-lit workspace of an area of at least 1 square metre. Important tools to have on hands - a Phillips head screwdriver, a flathead screwdriver and a pair of scissors (or small wire cutter). A few cable ties and/or Velcro tapes should come with the casing and the power adapter, and these should be used to lay out the cables. Place the casing in front of yourself and orient the bottom towards you, while the rear faces left. Loosen the two knurled screws on the rear side that holds the side panel. Push it in the direction of the rear panel and lift it away. Now, remove the bag with the screws and get the cables associated with the front panel and the casing fan out of the way.

2 Install port shield

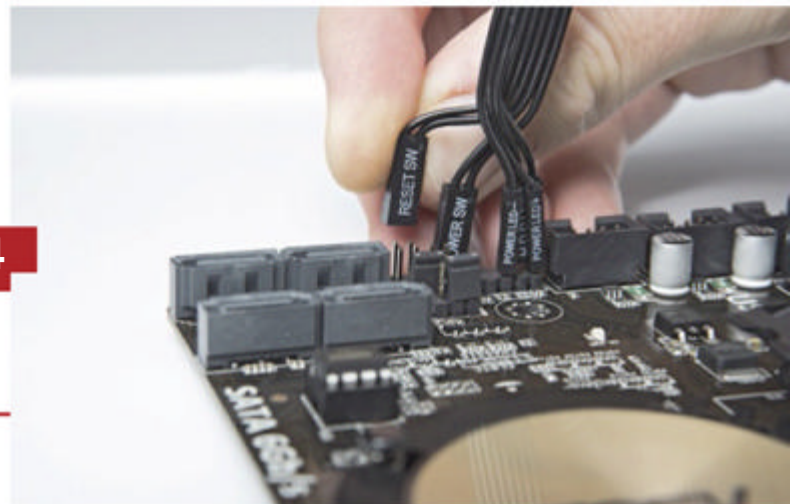
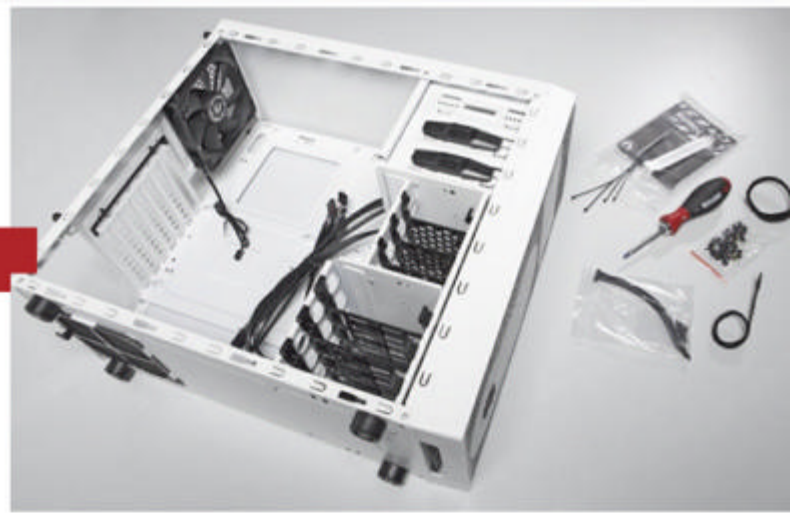
Remove the port shield from the motherboard packaging, and clip it (from the inside) into the appropriate opening in the rear of the casing. Make sure the labels faces outwards. The holes in the bracket need to be lined up in a way that ensures the motherboard's ports can pass through them.

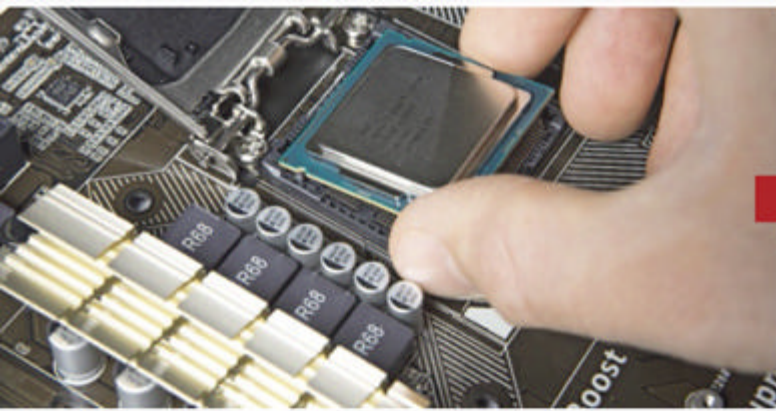
3 Fasten motherboard

Before you remove the motherboard or any other component (CPU, RAM, plug-in card) from an electro-static discharge protective bag, you should ground yourself by touching a nearby metal surface to get rid of electrostatic charges. Even then, you should only hold the motherboard by the edges. Attach it to the port shield carefully and lower it onto the raised screw thread. Then screw in the six fastening screws without applying too much excessive force, which can lead to too much torque, and subsequently strip the thread from your screw.

4 Connect the casing cables

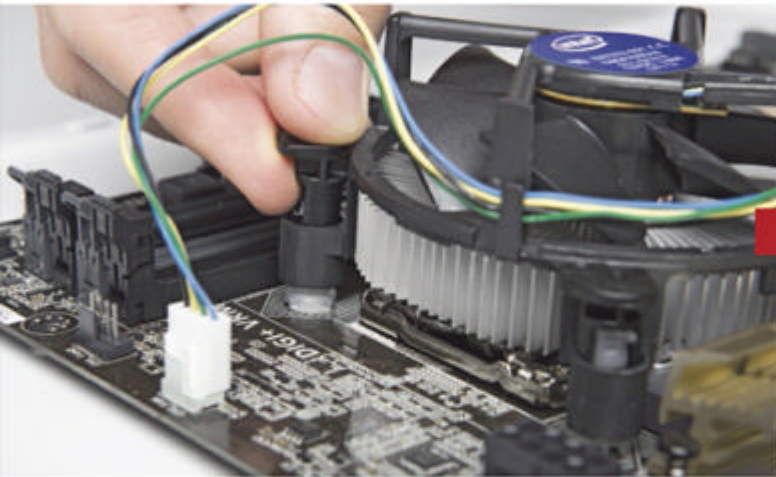
This is a very tricky task as the cables in question are usually small, and the pins to connect the cable heads are also equally tiny. However, this is an important step as the casing cables are for the on/off switch, the reset button, various status LEDs, and as well as the front-side USB ports. The location of the closely-spaced pins lie in a block in the lower right section of the motherboard. Refer to the chapter 'Connections | System panel connector' in the motherboard's manual. In case of the Z97-K, the positive and negative poles are always to the left and the right, respectively. The connectors of the BitFenix Neos must be attached to the Z97-K as the white inscription points upwards (our photograph was taken from above). The power-LED connectors must be connected to the first and second pins in the top left section, the HDD LED connector must be right below these, the power switch must be connected to the two central pins in the lower section, and the reset switch must be connected to the two right-side pins in the lower section. Follow the pin-guide in the manual if you are confused.





5 Install the processor

Detach the clamp arm of the CPU socket by pushing it in the direction of the motherboard and then pushing it away from the socket. Now, swing open the socket cover and remove the plastic covering without touching the socket's contacts. Ground yourself and ensure that you only hold the CPU at the edges. Now, align CPU, following the two notches on the chip as it aligns to the posts on the socket itself. Make sure that all four corners are level with the edge of the socket. Finally, shut the socket cover and lock it with the clamp arm.



6 Attach the CPU cooler

Remove the plastic cover that protects the stock thermal paste from the box. Rotate the cooler so that its power cable is oriented upwards and align the four mounting feet into the holes in the motherboard. Position the cooler, and hold it tightly while you push the four mounting feet downwards (in a cross pattern) until each foot snaps into place with an audible click. Check whether all the mounting feet are firmly secured, and connect the cooler's power cable to the 'CPU_FAN' socket, which is usually above the CPU socket. If you want to detach the cooler at a later stage, use a flathead screwdriver to turn the mounting feet to a quarter-rotation in the anti-clockwise direction, after which you can pull them up. Before you can re-attach the cooler, you will have to replace the thermal paste and lock the mounting feet again, with a quarter turn clockwise.



7 Insert the RAM module(s)

In case of the Asus Z97-K, the two left RAM slots belong to memory channel A, and the two slots on the right belong to channel B. In order to use the fast dual-channel system, a module need to be inserted into each channel. Insert one module into the first slot on the left ('DIMM_A1'), and insert the other one into the third slot ('DIMM_B1'). Fold the unlocking tabs outwards to ease the installation. Ground yourself before you touch the memory. Insert each module into the corresponding slot, and apply pressure at the ends until the latches snap into place.



8 Install the power supply unit

In modern casings, the power supply are usually positioned at the bottom of the case. It sucks in fresh air (instead of warm exhaust air) through a dust filter fitted on the bottom. This in turn makes for a better cooling system and a long service life. Install the power supply unit from the inside and align the air inlet is facing and over the filter on the bottom. Fasten the power supply unit into place using the four screws contained in its package.

Caution In order to ensure that the air supply of the power supply unit works at an optimal level, make sure that the computer is not placed on a plush carpet, which may disrupt the air-flow coming into the power supply unit.



9 Set up power supply

Now, connect the motherboard's 24-pin main power supply connector to the socket, while making sure that the latch grabs onto the latch at the outer edge of the socket. Position the separate

four-pin connector (the one in the image shows it being held with the thumb) against the 20-pole device and press the two devices against each other while they are being inserted. Now, insert the power supply's 2x4-pin CPU power cable into the socket that is in the upper left part of the motherboard. The connectors only fit into the device properly when the safety hooks are latched in.

10 Install the SSD in its drive tray

Pull out the appropriate drive sled from the housing. Insert the Crucial SSD with its bottom side pointing upwards, and the SATA connections faces between the clamp mountings of the tray. Use the screws provided by BitFenix to attach the SSD to the tray. Re-insert the carriage into the casing, along with the SSD. Use a SATA data cable from the motherboard's package to connect the SSD to the SATA6G_1 port. Next, pull a SATA power cable and connect it to the power connector of the drive.

11 Insert the optical drive

Unclip (from below) the plastic front face of the casing from the metal structure, and remove the lower drive. Then use a screwdriver to break off the pre-cut metal sheet from the casing – bend the sheet metal in both directions until it succumbs to the pressure. If sharp edges remains on the casing, you can flatten them with an old nail file. Detach the drive's quick-acting lock and insert the drive into the shaft from the front. The front side of the casing should remain open.

12 Attach a second casing fan

In order to improve the airflow that passes through the casing, it makes sense to attach an additional casing fan to the lower side of the front face. Towards that end, you should unclip the fan bracket with the dust-proof grids from the casing. Align the fan in a manner that ensures that the power cable points upwards (towards the motherboard) and the motor is on the inside. Now, insert the four retaining bolts that are on the outer side of the grid into the rubber plugs of the fan, in order to fasten it to the grid. Thread the power cable through the front side in the direction of the motherboard, clip the fan bracket into its notch and fasten the front side of the casing. Now, align the optical drive such that it lines up precisely with the front side, and fasten it in place with the quick-acting lock.

13 Ensure proper airflow exist

In order to ensure that proper airflow from the front to the back of the casing is established, group the exposed cables into strands. Lie these cables along a wall of the casing, so that the airflow will not be impeded. Use the cable ties and Velcro bands to achieve this. Extra cable length can then be pushed into the unused drive bay for maximum airflow. All you have to do now is close the casing, connect the peripheral devices, the network cables and the power cables and switch on the computer. If nothing happens, check the power supply (i.e. check whether the power adapter has been activated, and whether the motherboard's main power supply and CPU power supply are in order), and check whether the power switch and the reset switch on the front of the casing have been connected properly to the motherboard in step 4. 📺

10



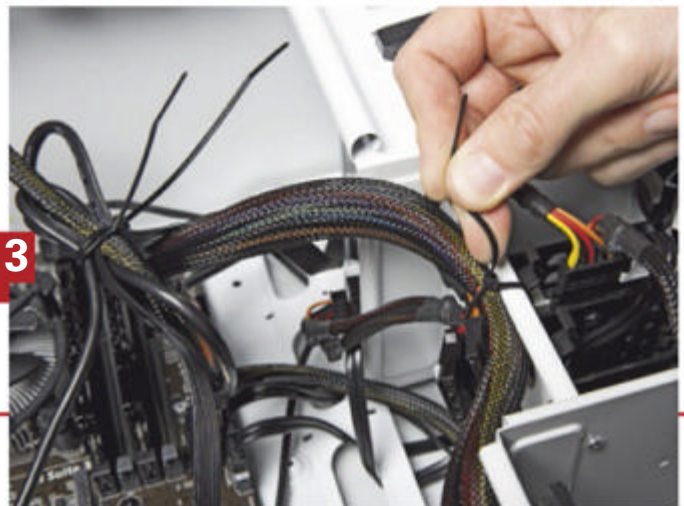
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12



13



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AVAILABLE
DIGITALLY!**



Here's how to order CHIP Malaysia to go :-

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Step 2: Creating a Zinio account

You will need to have an account with Zinio to download magazines from its store. Zinio will keep a record of what you've purchased and if you restore your iPad, all you need to do is to re-download your content. The best part of all? Re-downloads are free!

You can create a Zinio account from the app itself or log on to www.zinio.com to do it. All you need is an email address and a password.

Step 3: Download CHIP Malaysia

Launch Zinio and you'll see three tabs at the bottom. Click on the 'Shop' tab and search for 'CHIP Malaysia'. When you see our cover, that means you're close to getting your hands on CHIP Malaysia's iPad magazine.

You have the option to get the newest issue or subscribe to 12 issues. Select an option and pay for it via PayPal or Credit Card.

Step 4: Read

Once that is done, tap 'Library' at the bottom bar and you'll see the cover of the issue you bought. Tap on it and you're done! Zinio will let you read while it downloads the remaining pages. Enjoy!

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TEST LAB: The Tools

Here at the CHIP Test Labs, we adhere to the high requirements set by the CHIP International Testcenter standards. This means that everything here -- from our own personal knowledge and to our trusted tools of the trade -- are meant to provide the most optimised, unbiased and comprehensive review to every product that comes through our doors. As thus, our test bed tools are specifically picked to get the most out of every test we perform



Intel Platform

Motherboards

Intel DZ77GA-70K
MSI Z87 MPower

Processors

Intel Core i7-3770K
Intel Core i7-4770K

Graphics Processing Unit

MSI GeForce GTX
980 GAMING 4G

CPU Cooler

Cooler Master X6

AMD AMD Platform

Motherboards

ASUS Crosshair V
ASUS A88X-Pro

Processors

AMD FX-8150
AMD A8-3850

Graphics Processing Unit

ASUS Radeon R9 290X

CPU Cooler

Cooler Master Hyper 212
EVO



PSU, Storage & RAM

Power Supply

Cooler Master Silent Pro
Hybrid (1300W)

Storage

Western Digital Black²
Dual Drive
Western Digital My Book
Live Duo

Memory

Kingston HyperX
KHX1600C9D3K4/16GX
Kingston HyperX FURY
HX318C10FWK2/8
Kingston HyperX
Predator
HX430C15PBK4/16

Benchmark Software

Operating System

Windows 7 Ultimate
(64-bit)

Futuremark

PCMark 8
3DMark

Industry Standard Benchmark Tools

AIDA64
SiSoftware SANDRA
Specy
Unigine Heaven

TEST LAB



The Technologica Crux

February's been quite a hectic month here at CHIP; with Sharil slotting in as the new editor, Chinese New Year and the month itself being a short one and all. We've been working on overdrive for sure, but it's nothing that we're not already used to.

One piece of great news is that Sharil will be going to Barcelona on behalf of CHIP to cover Mobile World Congress! It's an event that I myself would like to chalk off my bucket list one day, but it's always great to have a colleague going than no one going at all. Samsung, Sony and HTC look like they're pulling out all the stops this year, and it'll be great to see what they and the other smartphone players have to offer.

Our reviews section this month is chockfull off lovely goodies, chief of which is the massive MSI GT80 Titan notebook, which you've likely read about in our Tech Spelunk section last month. The BenQ XL2430T gaming monitor is another great product, and if you've been waiting out for a new smartphone, we have the Samsung GALAXY Note Edge too. There's more in store of course, but as always, you'll have to turn the pages to read about them.



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Ratings

Each product review is rated on a scale of 1 to 5 for different key parameters:



PERFORMANCE : Refers to the efficiency of execution

FEATURES : Rates the abilities and unique characteristics available

DESIGN : Varies according to product. Finished products - form factor and build quality. Hardware components - layout, size and cooling solution. Software - user interface

VALUE : Calculated from the performance and features of the product in relation to the price



CHIP Awards



CHIP Editors' Choice Award

Awarded to products that receive unanimous endorsement from all CHIP editors for its overall brilliance



CHIP Outstanding Award

Reserved for products that combine astute technical performance with good quality and design



CHIP Recommended Award

Given to products that possess singular quality worthy of a recommendation



Saving Money With The A3

Samsung's next entry into budget smart-phones comes in the form of the Samsung GALAXY A. This device comes with a 4.5-inch Super AMOLED display and it is powered by a 1.2GHz Quad Core CPU which runs on the latest Android 4.4.2 KitKat. This smartphone also comes with 1GB RAM and storage up to 64GB with microSD. It also features a 5.0MP CMOS front camera and an 8.0MP CMOS rear camera.

Samsung Galaxy A3

Price: RM899

Contact: Samsung Malaysia Electronics Sdn. Bhd

Phone: 1 800 88 9999

Info: www.samsung.com.my

Budget Tablet Galore

Our locally made tablet brand returns and this time it brings back the same affordability with improved mobile performance. It has an 8-inch 1280x800 IPS display powered by an Intel Atom processor Z3735F while running on Windows 8.1 with 1GB RAM and 32GB of storage. It also comes with microSD expansions, Wi-Fi and Bluetooth 4.0 connectivity while sporting a 5MP rear and 2MP front camera. Additionally, it also has Micro HDMI and Micro USB ports for extra accessibility.

SNS Network Joi8i

Price: RM649

Contact: SNS Network (M) Sdn Bhd

Phone: 1-700-817-616

Info: www.gloo.com.my



Bring The Boom With You

Phillips want you to bring the party with you with the BT1300 Woox, a Bluetooth speaker which easily streams music from any Bluetooth smartphone or tablet. This device comes with the Anti-Clipping function which allows you to play music louder and keep the quality high even when the battery is low. Additionally, it also has a built-in microphone which makes hands-free phone calls accessible and it automatically pauses the music when you a phone call comes through.

Philips BT1300 Woox

Price: RM149

Contact: Ban Leong Technologies Sdn. Bhd.

Phone: (03) 7956 6300

Info: www.philips.com.my



A new compact age

With tablets and smartphones getting smaller, so are PCs. The ECS Liva X is an example of an ultra-compact form factor mini PC that brings the power of a desktop to a small size.

This device comes with an Intel Celeron N2808 with Intel HD Graphics and 4GB of RAM. Storage wise, it has 64GB eMMC storage and it comes with Wi-Fi/Bluetooth capabilities. It also has an expansion slot for mSATA SSDs storage. For output, it comes with HDMI and VGA port while sporting a single USB 3.0 port and two USB 2.0 ports. Additionally, it supports Windows 7, 8 and 8.1.



ECS Liva X

Price: TBA

Contact: Convergent Distribution (M) Sdn Bhd **Phone:** (03) 2144 1881

Info: www.ecs.com.tw

Beauty Is Captured

As taking selfies has become a serious trend, Sony has provided an outlet for you to maximise your selfie taking quality with the KW11 Series Digital Still Camera. This camera comes with an Exmor RS CMOS sensor with 19.2MP. It allows beautiful and clear selfie shots be taken with its 21mm wide angle, F2 maximum aperture and 180 degree swivel lens. It also comes with extra connectivity in the form of NFC and Wi-Fi compatibility making it easy to share your images on social sites.

Sony KW11

Price: RM3,299

Contact: Sony (Malaysia) Sdn Bhd

Phone: 1 300 88 1233

Info: www.sony.com.my



Protection and Productivity

There is no better way to improve the already slim and mobile iPad Air 2 than with the new Logitech Type+ protective case with integrated keyboard. This 2-in-1 protective cover comes with some interesting features such as a QWERTY keyboard with iOS shortcuts for easy on-the-go productivity. The keyboard batteries can also last up to 3 months on a single charge with an auto on/off setting, as well as an iPad Auto Wake/Sleep function. The casing also provides protection against bumps, scratches and spills.



Logitech Type+

Price: RM329.00

Contact: Ingram Micro Sdn Bhd., MCL Sdn Bhd., M-Link Sdn Bhd., Kaira Technologies Sdn Bhd

Phone: (03) 7955 8188, (03) 8023 3800, (03) 7728 9003, (03) 7955 3669

Info: www.logitech.com/en-my

Cutting Edge

The famed gaming laptop series returns this year with the Razer Blade 14 2015. This gaming device comes with an Intel Core i7-4702HQ Quad-Core Processor with Hyper Threading 8GB RAM and up to 512 GB SATA III SSD storage – all of this while running Windows 8.1. It provides a powerful gaming experience with its NVIDIA GeForce GTX 970M graphics card and a 14-inch HD+ 16:9 ratio display. Additional features include a wide array of connectivity options such as USB 3.0, HDMI audio and video output, and Dolby Home Theatre v4.

Razer Blade 14 2015

Price: TBA

Contact: Ban Leong Sdn Bhd

Phone: (03) 7956 6300

Info: www.razerzone.com



Capturing More

Olympus brings their famous OMD series of cameras back to the fore with the launch of the EM5 MKII mirror-less interchangeable camera. This device comes with a 16MP LiveMOS image sensor, similar in other Olympus range models while featuring a new imaging system called Hi Res Shot - which produces a 40MP image by shooting up to 8 shots in quick succession. Other features include Wi-Fi connectivity, metal alloy chassis, splash/ dust/freeze proof – plus a whole host of other features.



Olympus OMD EM5MKII

Price: RM 3,899 (Body Only)

Contact: Olympus (Malaysia) Sdn Bhd

Phone: (03) 6411 0000

Info: www.olympusimage.com.my

For The Gamers

Gamers looking for a monitor to be paired with latest gaming rig should take a look at the AOCX M2641 monitor. It comes in at 23.6-inches and has a contrast ratio of 3000:1. The monitor features the Clear Vision function image performance engine which can convert SD content to HD. It also has a built-in timer which allows users to automatically turn off the monitor after a set period of time. It can also reproduce beyond than dark shades with its DCR technology which delivers at a ratio of 50,000:1

AOC M2641

Price: RM 539 (w/o HDMI)

RM599 (w/ HDMI)

Contact: Adventure Multi Devices Sdn Bhd, Eternal Asia (M) Sdn Bhd

Phone: 03 7955 7788, 03 5569 2200

Info: www.aoc.com





The Mi Pad Has Arrived

Xiaomi has kept their fans waiting for long enough as the Mi Pad has finally arrived in Malaysia. The Mi Pad sports a 7.9-inch 1080p IPS high resolution display with a 2048x1536 pixel resolution. It is powered by an NVIDIA Tegra K1 Quad-Core 2.2 GHz CPU with an NVIDIA Kepler GPU. It runs on the Android 4.4 KitKat and has 2 GB RAM with 16GB flash memory with microSD support of up to 128GB. Other features from this device includes Bluetooth 4.0, Wi-Fi and the 8.0MP rear camera with HD video recording.

Xiaomi Mi Pad

Price: RM799

Contact: Xiaomi

Info: www.mi.com.my

A Card Sized PC

First seen in 2012, the Raspberry Pi Foundation has been steadily coming out with further improved models along the year,s with the latest being the Raspberry Pi 2 Model B+ which comes with an ARM Cortex Quad Core A7 processor that runs on 1 GB RAM. It is still equipped with an extensive 40 pin GPIO connector, but now features four USB ports and a more efficient switching power supply. This credit card sized device is bound to change the face of computing as we know it.



Raspberry Pi 2 Model B+

Price: RM128

Contact: element14 Malaysia

Phone: 1800 88 6223

Info: www.raspberrypi.org

Data Titan

For those looking at getting a NAS system for their business, Synology has released their latest Diskstation DS2015xs, which comes with an all new Annapurna Labs Alpine Quad Core CPU and a RAM that extends to 8GB. This device offers eight bays with a maximum of 20 bays through and optional expansion module. It is compatible with 2.5-inch to 3.5-inch, SATA III and SATA II HDDs as well as SSDs. These drives can be hot-swappable, and it also has two USB 3.0 ports for any external connections.



Synology DiskStation DS2015xs

Price: TBA

Contact: Build Technology Supply Sdn.Bhd., Eternal Asia (M) Sdn Bhd

Phone: (03) 7955 3699, (03) 5613 5600

Info: www.synology.com

Smart Wearables



Razer has not only been a purveyor of gaming peripherals and devices, but they have also been introducing smart wearables that enhance your gaming and daily experience. The Razer Nabu X is their latest wearable which offers a no display notification interface which vibrates when you get alerts from your phone. It also features fitness tracking features such as a pedometer, sleep tracker and calorie counter. Another unique feature is the Pulse technology which allows Nabu and Nabu X bands to communicate with each other within a specified range.

Razer Nabu X

Price: TBA

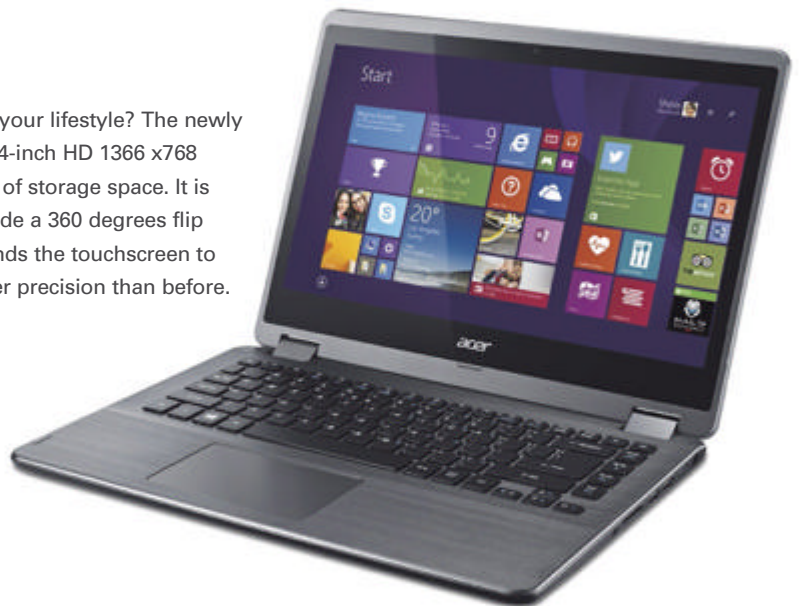
Contact: Ban Leong Sdn Bhd

Phone: (03) 7956 6300

Info: www.razerzone.com

Flexing Displays

Are you looking for a laptop that allows you to be flexible with your lifestyle? The newly launched Acer R14 allows you to do just that. It comes with a 14-inch HD 1366 x768 display, runs Windows 8.1, features 6GB of RAM and 1TB HDD of storage space. It is powered by an Intel Core i5 processor. Its unique features include a 360 degrees flip display screen and the new Zero Air Gap technology which bonds the touchscreen to the LCD. It also has a cutting edge touchpad that provides better precision than before.



Acer Aspire R14

Price: RM2,499

Contact: Acer Sales and Services Sdn.Bhd

Phone: 1 800 88 1288

Info: www.acer.com.my

Breaking Barriers

Canon's latest photography device aims to break boundaries with the new EOS 5Ds. It features an unprecedented sensor resolution in a DSLR, clocking at 50.6 megapixels. It brings a new meaning of high resolution, with support of the EF lens line-up. It packs dual DIGIC 6 processors, dual SD/CF card slots, 61-Point High Density Reticular AF array including up to 41 cross-type AF points, and a new Picture Style called "Fine Detail" has been added to enhance the sharpness of JPEGs and EOS Movies.



Canon EOS 5D

Price: TBA

Contact: Canon Marketing Sdn Bhd

Phone: (03) 7884 6000

Info: www.canon.com.my

Wider Gaming Experience

Gamers who want to find a wider view in life, should take a peek at the new LG 34UM67 Ultrawide Monitor. This gaming monitor is LG's first 34-inch 21:9 device that was made specifically for graphics intensive gaming. It features AMD's FreeSync technology which eliminates screen tearing. The monitor has an ultra-wide field-of-view which opens up hidden spaces that are invisible to regular 16:9 monitors. It also utilises the Dynamic Action Sync mode which minimizes input lag thus enhancing gamers' real-time gaming experience. This model also provides multiple display set-up options, thus raising productivity levels for stock traders and other financial professionals who have to keep track of large data simultaneously on screen.



LG 34UM67 Ultrawide Monitor

Price: TBA

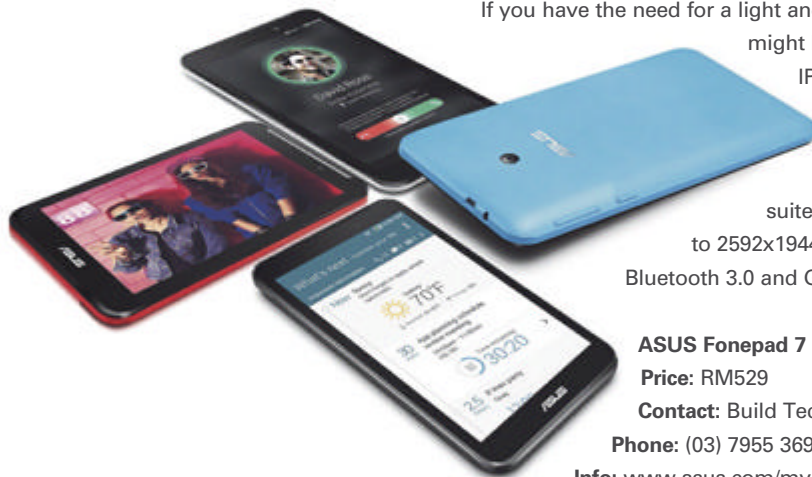
Contact: LG Electronics (M) Sdn Bhd

Phone: 03-7962 7777

Info: www.lg.com/my

Slim and Light

If you have the need for a light and fast tablet for your hectic lifestyle, the ASUS Fonepad 7 might be the fix that you require. It comes with a 7-inch 800x1280 IPS LCD capacitive touchscreen display and utilises an Intel Atom Z2500 Dual Core 1.6GHz processor. It runs on Android 4.2 Jelly Bean and has 1 GB RAM up to 32GB RAM storage expandable with MicroSD. It has a camera suite of 5MP rear and 1.2 MP front with a pixel support of up to 2592x1944. Other connectivity features include Wi-Fi, microUSB, Bluetooth 3.0 and GPS.



ASUS Fonepad 7

Price: RM529

Contact: Build Technology Supply Sdn Bhd., Servex (Malaysia) Sdn. Bhd

Phone: (03) 7955 3699, (03) 8024 6688

Info: www.asus.com/my/

Powerful Gaming

Alienware is no stranger to high end gaming devices that has gamers swearing by their brand when it comes to quality gaming. The same quality is now back with the all-new Alienware 17 gaming laptop. This gaming powerhouse features a 17.3-inch FHD 1920x1080 Anti-Glare display. It is powered by an Intel Core i7-4710HQ processor with 8GB RAM and houses the latest NVIDIA GeForce GTX 970M, coupled to a 1TB HDD storage option. This device is also compatible with the Alienware Graphics Amplifier which allows gamers to pair it with desktop level graphic cards to boost the graphics performance of the laptop.



Alienware 17

Price: RM6,299

Contact: Dell Asia Pacific Sdn Bhd

Phone: 1 800 88 0301, 1 800 88 2888

Info: www.alienware.com.my

Lenovo Vibe X2

Price RM 1,199
Info Lenovo Technologies Sdn.Bhd
Phone 1 800 80 8575
Contact www.lenovo.com/my

Specifications

Operating System: Android 4.4.4 KitKat
Processor: MediaTek 6595m octacore (4 x 2.0GHz, 4 x 1.69GHz)
Frequency: GSM 850/900/1800/1900MHz, HSDPA 850/900/1900/2100MHz, 4G LTE
Display: 5-inch (1920x1080) LCD Touch Display
Connectivity: Wi-Fi a/b/g/n, Bluetooth 4.1 & EDR, microUSB 2.0, 3.5mm Stereo
Memory: 2GB
Storage: 32GB
Others: 13-Megapixel Rear Camera, 5-Megapixel Front Camera
Dimensions: 140.2 x 68.6 x 7.3 mm
Weight: 120g

RATINGS

Performance



Features



Design



Value



+ Great performance
 Decent battery life
 Good display
 Dual-SIM slot



- No extra storage slot
 Plastic construction

BENCHMARK RESULTS

3DMark Ice Storm: Maxed out!
3DMark Ice Storm (Extreme): Maxed out!
3DMark Ice Storm (Unlimited): 14,247 points
AnTuTu: 48,429 points
PCMark (Work): 3,374 points
PCMark (Work - Battery life): 4 hours 27 mins



The camera module is on the corner of the body instead of the middle. You can also see the tri-colour construction.



Affordable performance

This flagship phone from Lenovo does not have a dragon like most flagships, but it still can give the others a hearty punch in the gut if it needs to

By Sharil Abdul Rahman

If you want to own a mobile phone that is both cost effective and value for your money, you can't go wrong with a Lenovo. A name usually associated with PCs, their mobile division in recent years has produced consistent winners in the value-for-money category. The latest Vibe X2 is no different in that regard.

Lenovo has opted to go a wee bit off tangent with the design of the X2. While it is still a smartphone, with a large 5 inch screen, fast processor and snazzy user interface – Lenovo elected to have the body to be made out of plastic. While this is not surprising, it is the sandwich design that is a delight to be seen on the phone. The corporate colours of Lenovo can clearly be seen in the construction – red, orange and gold plastics are used like a sandwich to construct the body.

The rest of the phone however are as per usual. You get the usual USB port, headphone jack, and on the left side, you get a dual-tray microSIM/nanoSIM slot. Yes, you can fit in two SIM cards in this phone. However you are at the mercy of the phone in terms of storage as there is no sign of a microSD slot. Good news is that Lenovo did not skimp, and included 32GBs with the phone, and further tacked on 2GBs of RAM to ensure everything is

smooth sailing.

Surprise, surprise – the Vibe X2 comes with a processor that is usually associated with low-end low-cost smartphones – a Mediatek chip. But don't let the name fool you – this iteration is an octa-core processor, with four cores running at 2.0GHz while the other four running at 1.7GHz. Yes, this is a big.LITTLE architecture arrangement – where four cores are for processor intensive programs, and the other four is when you need low power consumption.

That Mediatek chip? No problem at all. Both 3DMark and Antutu scores for the phone are very good – on par with what similar Qualcomm and Samsung chips can pump out. Running the phone is not a problem for the chip as everything was smooth as butter, and no discernible lags can be felt. Some un-optimised apps and games will not be at home with a big.LITTLE processor, but that is on the developer's side, not Lenovo's.

CHIP CONCLUDE :

A great phone for the amount of ringgit that you are paying – albeit with some storage caveat and perhaps styling preference caveat as well.



The All-Rounder Headset


Kingston takes another jump into audio peripherals with the HyperX Cloud II gaming headset geared towards gamers of all platforms *By Nicolas See Tho*

Kingston has been renowned for their prowess in creating some of the most trusted memory products for computing over the years, but recently, they have expanded into different fields such as audio peripherals. Their latest product from that line is the Kingston HyperX Cloud II gaming headset.

This headset comes in a beautiful red box which houses the device together with its accessories. It comes with a detachable microphone, USB interface for the PC and an airplane adapter for traveling. It also comes with a pair of additional ear padding for replacement purposes. The device provides an adequate amount of comfort thanks to its memory foam on the headband which fits snugly on your head.

The main draw of this gaming headset is the ability to achieve a Virtual 7.1 Surround sound environment via the USB attachment - which is aimed at creating a more immersive gaming environment. It is also compatible with not only PC, but gaming consoles as well out of the box, with the exception of the Xbox One as the adapter is sold separately. Additionally, it also provides passive noise cancellation due to its closed ear-cup design on the

headset.

The device does not hold back when it comes down to audio performance, as it provided amazing all rounded audio for just about anything. Gamers will be able to enjoy the clear, pristine sounds for their respective games thanks to its studio-like sound quality. However, the Virtual 7.1 surround sound feature does not provide enough audio depth thus certain aspects from a gamers perspective might be lacking when playing cinematic games. It also does not come with a companion software which may be inconvenient for users who love to tinker with their preferred settings. Plus, the bass reproduction is average at best. 

CHIP CONCLUDE :

The Kingston HyperX Cloud II is a steal at its current price with the level of performance that can stand on its own against premium gaming headsets. While certain features might not stand out as much, this headset does give gamers the essentials when it comes to audio entertainment devices.

Kingston HyperX Cloud II


Price RM399
Contact Amble Action Sdn Bhd
Phone (03) 7665 3939
Info www.kingston.com


Specifications

Driver Size: 53mm
Impedance: 60 ohms
Maximum Input: 150mW
Frequency response: 15Hz-25,000Hz
Connector: Mini stereo jack plug 3.5mm
Others: Microphone

RATINGS

Performance	
Features	
Design	
Value	

 Amazing Audio
 Lightweight
 Can be used with
 gaming consoles

 No companion software
 for tuning
 Virtual 7.1 doesn't
 provide much depth



Gamers who love to chat with their team will find this microphone a handy addition to the headset



The virtual 7.1 surround sound system works by connecting the headset to the USB connector which is then plugged in to your PC

ASUS GR8

Price RM3,388
Contact Build Technology Supply Sdn bhd., ECS Astar Sdn Bhd
Phone (03) 7955 3699, (03) 6286 8222
Info www.asus.com.my

Specifications

Operating System: Windows 8.1
Processor: Intel Core i7-4510U
Graphics: NVIDIA GeForce GTX 750 Ti
Memory: 16GB
Storage: 1TB 7200rpm HDD
Connectivity: Wi-Fi 802.11 b/g/n
Ports: 4x USB 3.0, 2x USB 2.0 3x Audio Jack, Ethernet port, 1x Headphone and Microphone port, HDMI, Kensington Lock

RATINGS

Performance



Features



Design



Value



+ Silent
 Comes with a bundle
 Compact

- The graphics are not
 futureproof
 No customisation options
 for CPU and GPU



BENCHMARK RESULTS

3DMark FireStrike: 3,567 points
3DMark Fire Strike Extreme: 1,902 points
PCMark Home: 3,077 points
PCMark Work: 4,183 points
PCMark Creative: 3,327 points



The ASUS GR8 comes with a gaming set of a mechanical keyboard and a gaming grade mouse to get gamers up and ready for their gaming sessions



The Dark Tower

ASUS brings us a gaming PC that is modelled like a console, but provides gamers with desktop quality games - the ASUS GR8 gaming PC *By Nicolas See Tho*

With all the competition between console-fans arguing which console is better, ASUS provides an alternative answer in the form of a small yet powerful gaming rig called the ASUS GR8. While technically not a console, it may convert console gamers to the PC front with its portability and power.

The GR8 was designed to look like a console – evident by its compact and slim profile; yet it is chock full of ports such as USB 3.0, USB 2.0, HDMI and Ethernet ports which like most PCs, is the norm. It has a unique sliding feature on its side which allows for easy modification of its storage and RAM modules but sadly, the same is not true for the GPU and CPU. The device does come complete with a mechanical keyboard and gaming grade mouse in the box to help complete the gaming setup.

This gaming device comes with a list of features that entices any gamers, such as a quiet and cool gaming design - which when the device is idle, it only draws 15W of power and it is amazingly quiet at only 20dB idle and 28dB at full capacity; making it a perfect companion regardless of location it is set up. It also

has a dedicated cooling system with dual copper heat pipes and a large fan to redirect heat away from the CPU and GPU.

Amazing performance is shoved out in spades despite its small size as it passes our benchmark tests easily while scoring high on both PCMark 8 and 3DMark Fire Strike. We tested the device on casual and high end games such as League of Legends and Metal Gear Solid: Ground Zeroes respectively, with both performing at smooth frame rates and minimal lag. If we were to find a bone to pick, it would be that the graphics on this device could prove to be inadequate for future games, but for present titles - it was able to run them at the highest settings.

CHIP CONCLUDE :

All in all, the ASUS GR8 is a powerful gaming device and it would be a good choice for gamers who wants to bring a portable rig on LAN parties or just move the device through different rooms. Price-wise, it is also in a comfortable zone whereby mid to high range gamers can afford this device.



Edge-ing the Competition Away

Will this be the turning point for gimmicks on smartphones? Will curve screens become more mainstream? *By Sharil Abdul Rahman*

What more can be said about Samsung? The company are usually right smack in front of the pack with their smartphones, and are usually saddled with gimmicks that may or may not work in meeting expectations of consumers. One of their more famous success story is the Note line of products. Now Samsung wants to branch out and give consumers a different yet same experience with their latest device - the Galaxy Note Edge.

It features a 5.6" OLED screen behind Corning's Gorilla Glass, which should provide it with some protection against scratches. At one edge of the screen, the display dips down to the side - creating a curved screen section that is still touch sensitive to the fingers. This display, called the Edge display by Samsung, works like a second screen for the users. Thanks to download able apps from the Samsung app store, users can equip notice apps or news tickets to the Edge screen that will work even when the main screen is off - just swipe the display twice to activate it. It is also the same screen where you will see your night clock, if you turn it on in the settings.

Underneath the hood lies a Qualcomm

Snapdragon 805 processor, running at 2.7GHz. While it is not the latest and greatest in the market, it is definitely the processor *du jour* (i.e. the hot stuff of the month) to have. Coupled with the processor are 32GB of storage, 3GBs of RAM (which makes using the phone such a breeze), and an external microSD slot that can accept cards up to 128GBs. Sweet.

Performance with the Edge is good. On PCMark, 3DMark and Antutu, the Edge zooms past most of its peers. You can say it *edges* out just about everybody. Our only comment about the Edge design is that it favours left-hand users rather than right-handers. While the screen will flip 180 degrees and right becomes left, the placement of the microphone and home button is still reversed, and you still need to flip the phone right back up to answer a call anyway. 📞

CHIP CONCLUDE :

If you are looking for a powerful, unique work device on the go - you cannot go wrong with the Samsung Galaxy Note Edge. Of course, we presume you are willing to part ways with a significant amount of money for this power.

Samsung Galaxy Note Edge

Price RM2,999
Contact Samsung Malaysia Electronics Sdn Bhd
Phone 1 800 88 9999
Info www.samsung.com.my

Specifications

Operating System: Android 4.4.4 KitKat
Processor: Qualcomm Snapdragon 805 (Quad Core 2.7GHz)
Frequency: GSM 850/900/1800/1900MHz, HSDPA 850/900/1900/2100MHz, 4G LTE
Display: 5.6-inch (1600 x 2560) LCD Touch Display
Connectivity: Wi-Fi a/b/g/n, Bluetooth 4.1 & EDR, microUSB 2.0, 3.5mm Stereo
Memory: 3GB
Storage: 32GB
Others: 16-Megapixel Rear Camera, 3.7-Megapixel Front Camera
Dimensions: 151.3 x 82.4 x 8.3 mm
Weight: 174g

RATINGS

Performance	★★★★★
Features	★★★★★
Cooling	★★★★★
Value	★★★★★
Great performance Good battery life Unique Edge Screen Removable battery	CHIP Best of 2014
Price	★★★★★

BENCHMARK RESULTS

3DMark (Ice Storm): Maxed out!
3DMark (Ice Storm Extreme): Maxed out!
3DMark (Ice Storm Unlimited): 19,161 points
AnTuTu: 45,534 points
PCMark (Work): 4,067 points
PCMark (Work - Battery life): 4 hours 27 mins



Like all Notes, it comes with the excellent stylus.

ASUS STRIX 7.1

Price RM899
Contact Build Technology Supply Sdn Bhd
Phone (03) 7955 3699
Info www.asus.com/my

Specifications

Interface: HDMI, USB
Driver size: 40mm x2, 20mm x2, 30mm x1
Frequency response: 20Hz – 20kHz
Impedance: 32 ohm
Cable length: 3.0 metres

RATINGS

Performance



Features



Design



Value



+ Excellent performance
 Feature-packed



- Price
 Size



An Overkill Sound Experience

The ASUS STRIX 7.1 features actual 7.1 surround sound audio *By Nazrin Zain*

If you've followed our magazine for the past few months, you'll probably be wondering right now why we are reviewing the same pair of headphones over and over again. It is actually part of a range, and this time, we take a look at the ASUS STRIX 7.1.

The ASUS STRIX line of headphones all feature the same owl motif, but the company will tell you that the inside is what makes the headphones different from each other. This is most notably true with the STRIX 7.1, because it is the only one so far that has true 7.1 surround sound audio using five discrete neodymium magnets to deliver excellent sound quality.

The neodymium magnets used in the STRIX 7.1 come in varying sizes, with each of them functioning as front, side, centre, rear and subwoofer, to create a complete surround sound experience. Like the STRIX DSP, the STRIX 7.1 comes with a USB Audio Station, and is required to use because the STRIX 7.1, unlike the other two headphones uses a HDMI connector instead of the standard auxiliary adapter.

The USB Audio Station is where all of the headphone's controls are located. Here, you can switch between 7.1 and Stereo

modes, adjust the audio levels for each driver, and even adjust the lighting levels of the headphones. You can even connect your speakers to the USB Audio Station, and control your speaker's volume and microphone levels from it.

As far as audio quality goes, the STRIX 7.1 is an excellent pair of headphones, regardless if you're listening to music, watching movies or playing computer games. Its ability to switch between stereo, 5.1 and 7.1 audio means that it is a perfect fit for just about all of your audio needs.

The surround sound feature is especially great if you're gaming, as some games such as Counter Strike and Call of Duty will benefit as you'll be able to hear enemy footsteps regardless from which direction they come from.

CHIP CONCLUDE :

Much like the headphones that we reviewed before it, ASUS STRIX 7.1 gaming headphones is a great pair of headphones for gamers and media enthusiasts alike. Its asking price may be a bit steep, but the features that it comes packed with is well worth the money spent.



The ASUS STRIX 7.1 features an owl-eye design, much like the previous models we've reviewed



The USB Audio Station makes a return with the STRIX 7.1, allowing users to switch between stereo and surround sound, controlling volume level of each driver, and works as a central hub for all your audio needs



The Best Gaming Laptop Money Can Buy

MSI pulls out all the stops with the GT80 Titan

By Nazrin Zain

Last month, we ran a Tech Spelunk piece on the MSI GT80 Titan - and we've pretty much explained how it's a behemoth of a gaming notebook, bar none. MSI was gracious enough to send us a unit to review, and boy, does it live up to its "Titan" moniker in more ways than one.

The GT80 Titan features a gigantic 18.4 inch WLED display at Full HD resolution, powered by a 4th generation Intel Core i7 processor, and up to 32GBs of DDR3 RAM. As for storage, you get a choice of up to 1TB of storage in Super RAID 3 as well as an additional 1TB HDD that spins at 7,200RPM.

MSI gave the GT80 five USB 3.0 ports, two mini DisplayPort, one HDMI 1.4 port, a LAN port, an SD card reader, as well as an option for either a Blu-Ray drive or a DVD multi drive.

You have the option to go for either one or two NVIDIA GTX980M GPUs in SLI mode. GT80 Titan is literally is the most powerful gaming notebook in the market right now.

The other *piece de resistance* of the GT80 Titan is its Steel Series mechanical keyboard built into the notebook. As if that's not enough, MSI has also made it very easy for users to upgrade the RAM

and ODD via a panel that is located above the keyboard. You simply need to slide it off, and you will be able to access the notebooks insides without any tools.

Performance wise, the GT80 Titan is able to play any game we throw at it - be it Tomb Raider, Thief and even Call of Duty; there was hardly any graphic lag whatsoever. MSI's new Shift profile system, coupled with the Cooler Boost 3 cooling system allows you to game without burning the notebook; though that being said, one very noticeable drawback is the noise generated by the fans that directs the heat out of the notebook.

Despite everything else, the notebook is a lot thinner than one would expect. It definitely is heavy, but it will still fit in a large notebook bag with no issues. 🇲🇾

CHIP CONCLUDE :

If you have the money for it, the MSI GT80 Titan is easily one of the best gaming laptops and desktop replacement machines you can find around. It's packed with the best components money can buy, and the best feature-set any gamer and enthusiast can ever ask for out of a gaming laptop

MSI GT80 Titan

Price RM13,999
Contact MSI Malaysia Office
Phone 1 300 22 1386
Info my.msi.com

Specifications

CPU: 4th Generation Intel Core i7-4980HQ
Memory: 16GB DDR3L up to 1,600MHz
Storage: Up to 1TB sSuper RAID 3 SSD, 1TB HDD
Graphics: NVIDIA GeForce GTX 980M x2
OS: Microsoft Windows 8.1
Display: 18.4 inch Full HD (1,920x1,080) anti-glare display
Connectivity: WiFi 802.11ac, Bluetooth 4.0
Ports: USB 3.0 x 5, HDMI 1.4b x 1, Mini DisplayPort x2

RATINGS

Performance	★★★★★
Features	★★★★★
Design	★★★★☆
Value	★★★★☆

+ Performance
 Easy access to components
 Built-in mechanical keyboard

- Noisy
 Heavy
 Expensive



BENCHMARK RESULTS

PCMark8 (Home):	4,892 points
PCMark8 (Work):	4,753 points
PCMark8 (Creative):	4,821 points
3DMark (Fire Strike):	13,536 points
3DMark (Fire Strike Extreme):	7,241 points



The top panel on the GT80 Titan can be slid off to unveil a number of components inside the notebook

ASUSTOR AS-604T

Price TBA
Contact Build Technology Supply Sdn Bhd
Phone (03) 7955 3699
Info www.asustor.com

Specifications

Processor: Intel Atom 2.13 GHz Dual Core Processor
Memory: 1GB SO-DIMM DDR3
Storage Support: 4x HDD 2.5/3.5-inch or SSD
RAID Support: JBOD, RAID 1, RAID 0, RAID 5, RAID 6 and RAID 10
Ports: 2x USB 3.0, 4x USB 2.0, 2x eSATA
Network: 2x Gigabit Ethernet

RATINGS

Performance



Features



Design



+ Can be used as a media centre
 Provides Hot Swappable functions
 User-Friendly web interface



- No dynamic expansions
 Price



Jack Of All Trades, Master Of None

ASUSTOR can be considered a newcomer on the NAS scene but it already made its mark as a high quality NAS provider. This time, they intend to continue tradition with the AS-60T

By Nicolas See Tho

NAS or Network attached storage allows users the freedom to venture into many productive ways to improve their lives whether for lifestyle or business reasons. ASUSTOR are one of the few companies that focuses primarily in this field and with the AS-60T, they are not messing around.

This device is a four bay, consumer and business friendly NAS, and for our tests, we used four 6TB Western Digital Red HDDs. It has a LCD display that shows you the IP address, and general settings with four button navigations located on the front while also sporting a singular USB 3.0 port, while the back of the device houses the majority of the connectivity options such as Ethernet ports, USB 2.0/3.0 ports and a special HDMI port allowing users to stream directly to their HDTVs.

This NAS has the ability to do many things thanks to its wide variety of app support on its user-friendly web interface, the ADM platform. It houses a wide list of applications that can be installed to further enhance your needs. Users can easily backup their files, using Backup Plan which works in the background to ensure your

PC is always backed up while supporting six different profiles for different needs. This device also makes it easy to configure via your smartphones through AiMaster.

Transferring files from the PC to this device varies in length as network performance is generally affected by the service provider, but the web interface is fast and intuitive making it easy to navigate through the huge amount of data coming and going. Another added advantage for this system is it support hot swappable drives which allows you to switch out HDDs anytime. On the flip side however, the device does not allow dynamic expansions thus, if you were to upgrade capacities, all storage drives must use matching capacities.

CHIP CONCLUDE :

From what we have tested so far, the ASUSTOR AS-60T is generally good at everything while excelling at nothing. At its price range, users won't feel let down by its performance but there are better options within its range.



The NAS has plenty of USB ports that cover the 2.0 and 3.0 standard as well as a HDMI port for direct streaming should you use the device as a media centre



A Small Wonder


The next generation of PC is upon us and they come in the form of the mini-PC. The ASUS VivoPC is the frontrunner of mini-PCs that aim to provide desktop performance in a small package *By Nicolas See Tho*

The dawn of the PC age saw huge bulky units being introduced, and as time pass, we see that beige box getting smaller and smaller. At the present, we have small boxed sized PC's like the ASUS VivoPC that is ushering in a new renaissance in computing. We take it on a test run to see how it performs.

From the outside, it has a simple looking appearance which gives of the illusion of it being underpowered. A closer inspection would reveal a power button located on its front with the USB ports, and the Ethernet port situated behind the device. The device also sports an HDMI port as its sole visual output.

One of the key qualities of this device is its amazing versatility. Thanks to its minuscule size, it can be easily VESA mounted on the back of a display, thus freeing up desktop space and creating a DIY AIO machine. It also has an ultra-low power consumption at only 6.5W at an idle state, which is the same energy as lighting a LED lightbulb. Another benefit provided

by this device is the silent performance, which provides stable and serene performance whether in idle or heavy loaded states. And it is small enough to be carted around in a bag.

When it came down to performance, one should note that this device is primed mostly at multi-tasking light productivity tasks as it only managed to average results on PCMark 8 as well as 3Dmark. This could also be due to the low storage on the device which often places a restriction on the software to install. It can, however handle casual games, work documents and movies perfectly fine and simultaneously as well. 

CHIP CONCLUDE :

So when it comes down to small computing and space saving performance, the ASUS VivoPC provides the exact package while still providing an affordable way for one to own a full PC.

ASUS VivoPC

Price TBA
Contact Build Technology Supply Sdn Bhd., Servex (Malaysia) Sdn. Bhd
Phone (03) 7955 3699, (03) 8024 6688
Info www.asus.com/my/

Specifications

OS: Windows 8.1
Processor: Intel Celeron 2957U Processor
Graphics: Intel HD Family
Memory: 2GB
Storage: 32GB
Connectivity: Wi-Fi 802.11 b/g/n, Bluetooth 4.0
Ports: 2x USB 3.0, 2x 4-in-1 Card reader, 1x Kensington Lock, 1x Ethernet port, 1x HDMI

RATINGS

Performance





Features



Design



 Small, portable
 Silent performance

 Not enough storage
 causes drop in
 performance
 Too little ports



BENCHMARK RESULTS

PCMark 8 (Home):	1,617 points
PCMark 8 (Creative):	N/A
PCMark 8 (Work):	N/A
3Dmark Cloudgate:	2,082 points
3Dmark (Fire Strike Extreme):	15,139 points
3Dmark Fire Strike:	N/A



This miniPC a wide range of connectivity options which is able to keep up with the modern applications of today

Logitech G302 Daedalus Prime

Price RM129
Contact Ingram Micro Sdn. Bhd., MCL Sdn. Bhd. M-Link Sdn. Bhd., Kaira Technologies Sdn. Bhd.
Phone (03) 7955 8188, (03) 8023 3800, (03) 7728 9003, (03) 7955 3669
Info www.logitech.com

Specifications

Tracking Resolution: 240dpi – 4,000dpi
Max. Acceleration (On Gaming Mousepads): 20G
Max. Speed (On Gaming Mousepads): up to 3.0m/second
Weight: 127 grams

RATINGS

Performance



Features



Design



Value



+ Price
 + Performance
 + Customisability

— Not for big hands



A Gaming Mouse for MOBA Gamers

Logitech shows that gaming mice don't need to be big and flashy *By Nazrin Zain*

Game titles such as League of Legends and DoTA 2 have risen to stratospheric levels of popularity; and with more such games coming out like Blizzard's Heroes of The Storm and Infinite Crisis on the rise, gamers are sure to be on the lookout for the best accessories to maximise their skill. Logitech, a big manufacturer of such accessories aims to be the main supplier with the Logitech G302 Daedalus Prime.

At a first glance, the G302 doesn't look all that remarkable. It looks like your run of the mill gaming mouse that comes with the standard 6-button setup, with the DPI shift button at the top, allowing you to choose between four different DPI profiles which you can set from 240dpi up to 4,000dpi.

As this is being marketed as a Multiplayer Online Battle Arena (MOBA) mouse by Logitech, the G302's true worth comes in how well it clicks. The mouse uses what Logitech calls the Metal Spring Button Tensioning System which keeps both the left and right mouse buttons precisely tensioned to improve response and feel, making in-game actions feel as accurate as they can be, as in MOBA games - issuing multiple commands a second is a norm.

The Logitech Gaming Software allows you to customise the six buttons available on the G302. In game, you can set one button to function as a temporary DPI shift

key when pressed down, and have another function as a push-to-talk button for easy communication, leaving your other hand free to enter commands and skills on the keyboard.

Its lightweight and compact design makes the G302 a perfect fit for a wide variety of gamers, and to bring along for LAN parties and gaming tournaments. Logitech's Delta Zero sensor technology meanwhile ensures your mouse moves and stops whenever you do; it is also quite precise, which is especially important for MOBA and FPS games.

Our one criticism is that people with really large hands may find the G302 a bit difficult to use, as the compact size is more biased towards smaller hands. While the G302's customisations can be saved in the on-board memory, the mouse itself does not have separate gaming profiles, which is instead saved on the PC where the Logitech Gaming Software is installed.

CHIP CONCLUDE :

All things considered, the Logitech G302 Daedalus Prime gaming mouse is great for MOBA and FPS gamers. To use the mouse to its fullest potential, we highly recommend installing the Logitech Gaming Software which will provide you with a big suite of customisations option that is based on the games you play.



The two main buttons on the G302 uses what Logitech calls the Metal Spring Button Tensioning System, which helps make clicks more pronounced, and not shallow



The DPI switch button allows users to quickly choose between four different DPI profiles on the fly



For Professionals and Newbies Alike

The ASUS X99-Pro is great for a variety of builds

By Nazrin Zain

A surprising number of Intel X99 board models have been seen popping up in the market, quite likely due to it being the first commercially available board that uses the DDR4 memory modules. ASUS has been one of the few companies who are offering a wide variety of these boards, with the X99-Pro being one of them.

The X99-Pro follows the X99 Deluxe's white colour scheme, which we have to say does look really nice to look at. The Pro features eight DDR4 DIMM slots which can be arranged in quad-channel memory (up to 64GBs), eight SATA III 6.0Gbps ports, one SATA Express port and two M.2 SATA ports for SATA PCIe SSDs.

It has three PCIe ports, capable of supporting 2 and 3-way NVIDIA SLI / AMD CrossFireX multi-GPU configurations - which is great if you're thinking of building a high-end gaming or overclocking PC. As far as I/O ports go, the X99-Pro has six USB 3.0 ports, four USB 2.0 ports, a LAN port, surround sound audio, as well as

connectors for WiFi and Bluetooth.

The X99-Pro is marketed for enthusiast users who want to do a little bit of everything: work, gaming and overclocking - and it certainly is capable of catering all these needs. The X99-Pro's LGA socket has enough pins for you to climb the voltage ladder to gain higher clock speeds, and enough clearance to install a liquid nitrogen cooling setup for extreme overclocking.

We managed to overclock our Intel Core i7-5960X to 3.5GHz without any issues or tweaking of the voltage, and with a proper water-cooling block and tweaking, we're pretty sure the motherboard can handle a 4.0GHz overclock or higher. 🇲🇾

CHIP CONCLUDE :

The ASUS X99-Pro motherboard comes with quite a number of bells and whistles, but at its core, it's still an excellent motherboard that is perfect for new and seasoned PC enthusiasts alike.

ASUS X99-Pro

Price RM1,140
Contact Build Technology Supplies Sdn Bhd, Servex (Malaysia) Sdn Bhd
Phone (03) 7955 3699, (03) 8024 5155
Info www.asus.com/my

Specifications

CPU Support: Intel Core Processor
CPU Socket: LGA 2011
Chipset: Intel X99 Chipset
Memory Type: Quad Channel Memory

RATINGS

Performance	👍👍👍👍👍
Features	👍👍👍👍👍
Cooling	👍👍👍👍👍
Value	👍👍👍👍👍

+ Good performance
 Feature-packed

- None



BENCHMARK RESULTS

PCMark 8 (Home):	4,753 points
PCMark 8 (Creative):	4,588 points
PCMark 8 (Work):	5,317 points



The X99-Pro features three PCIe slots that allows users to install 3 GPUs in SLI and CrossFireX configurations



ASUS are also quite generous with the selection of I/O ports available at the back

Audiobox Thor 7000

Price RM269
Contact Leapfrog Distributions Sdn. Bhd
Phone 03-7803 6703
Info www.audiobox.com/audiobox

Specifications

Subwoofers: 5.25-inch
Subwoofer Impedance: 8 Ohms
Satellite: 3x 5-inch
Satellite Impedance: 4 Ohms
Frequency Response: 40~20KHz
Connectivity: USB 2.0, SD card slot

RATINGS

Performance



Features



Design



Value



+ Dynamic sound
 Easy setup

- No audio
 customisations



Thor Reigns Down Upon Us

Home entertainment systems can now get a sound boost from Audiobox's Thor 7000 5.1 speaker system, which brings thunderous audio to your living room

By Nicolas See Tho

The core of any home entertainment system would be the audio setup, and it's not easy to find a good fit for any one system. However, a solution might be here in the form of the Audiobox Thor 7000 which aims to give entertainment systems the audio depth they need.

Straight out of the box, this device has an intimidating look, with five satellite speakers and one large subwoofer. The front has a LED Display and a single USB 2.0 port and MicroSD slot for expanded connectivity. Additionally, it also comes packaged with a wireless remote which allows you to change the settings without getting up from your couch.

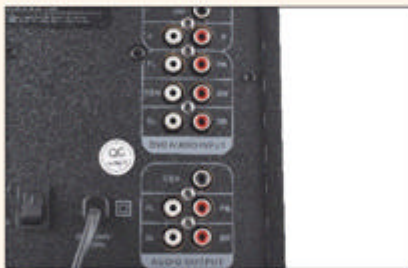
This speaker system has a few tricks up its sleeve as it provides a super high excursion bass driver for that deep sound and ultra-low bass sounding effect, while offering a full surround sound suite for your living room. The addition of the USB and MicroSD panel also gives users different input options

when playing their choice of media.

This device definitely provides what it states on the box as it has a deep and heart pounding bass during our tests with the modern music genre and movie trailers. The effect is amplified by the directional sounds that are clearly audible when watching a movie, giving you a clear sense of where the source of the audio is coming from. This system however lacks an audio customisation kit whether physically or digitally which can be a downer for those who like to adjust the different treble and basses to their own preferred settings. 🇲🇾

CHIP CONCLUDE :

To summarise, the Audiobox Thor 7000 does exactly what it states to do and it would be a nifty addition to any home entertainment system and even certain PC setups. While the lack of audio customisations might be a setback, don't let that stop you from trying out this bass monster.



This speaker comes with a large number of output ports for its five satellite speakers



The addition of USB 2.0 and SD card expansion allows users to use their smart devices or SD cards as input options for the speaker



Another Peking Entry

Thanks to Meizu, they, along with the other Chinese brands, introduced the concept of affordable flagship to the world

By Sharil Abdul Rahman

China is really making waves in the mobile industry. When we mean China, we do not mean those unnamed, el-cheapo China brand phones. We are talking about the big guys – Lenovo (hey, we have one review this issue!), Oppo, Huawei, Xiaomi, and also this brand – Meizu. To the uninformed, Meizu started off by manufacturing media players for the Chinese market, and soon dabbled into mobile phones. The latest iteration is the Meizu MX4, and this phone exudes refinement rarely seen in products from China.

At one glance, you will think that the MX4 is hailing from Cupertino rather than Beijing. The design, shape and even colour scheme greatly resembles the product from the fruit company. Or rather, an amalgam of several different models in one. The front fascia resembles the current sixth generation model, while the back greatly mimics the famous 3GS. But all and all, it is one pretty looking device.

The bezel (or almost lack of) around the screen makes the 5.36 inch screen looks even bigger on the device. This bodes well for those who wants to enjoy multimedia on the go, as they get maximum screen space with the MX4.

You get your standard selection of

ports – microUSB, 3.5" audio jack... and that's about it. Fascinating (at least for us) fact is that the MX4 comes with a removable back cover – so you can access the microSIM slot for your SIM card.

Underneath the pretty exterior lives another Mediatek chip. We did not find any problems using the phone even though it is using the supposedly 'inferior' CPU. This is reflected in the PCMark and 3DMark scores.

Meizu opted to use their own fork of Android for their devices, called FlyMe UI. On the surface, it blends both Android Lollipop and iOS 8 design sensibilities – it features a flat colour scheme, removes the app tray, iOS-like menu user interface and so on. The Meizu MX4 features only one soft button – the home button (that can double as a power button when hold). The back and menu/context buttons are both on-screen only. Not sure we are ok with that.

CHIP CONCLUDE :

Yet another entry from China that wows us. The overall package is very attractive, but the average users may be duped into believing that they are investing into one ecosystem when they are actually on another different platform.

Meizu MX4

Price RM1,159
Contact Lazada Malaysia
Phone 03 8601 1888
Info www.lazada.com.my

Specifications

Operating System: Android 4.4.4 KitKat
Processor: MediaTek 6595 octacore (4 x 2.2GHz, 4 x 1.69GHz)
Frequency: GSM 850/900/1800/1900MHz, HSDPA 850/900/1900/2100MHz, 4G LTE
Display: 5.36-inch (1920x1080) LCD Touch Display
Connectivity: Wi-Fi a/b/g/n, Bluetooth 4.0 & EDR, microUSB 2.0, 3.5mm Stereo
Memory: 2GB
Storage: 32GB
Others: 20.7-Megapixel Rear Camera, 2-Megapixel Front Camera
Dimensions: 144 x 75.2 x 8.9 mm
Weight: 147g

RATINGS

Performance	★★★★★
Features	★★★★★
Design	★★★★★
Value	★★★★★
<div>+</div> Great performance Good battery life	
<div>-</div> No extra storage expansion option	

BENCHMARK RESULTS

3DMark (Ice Storm):	Maxed out!
3DMark (Ice Storm Extreme):	Maxed out!
3DMark (Ice Storm Unlimited):	15,890 points
AnTuTu:	49,326 points
PCMark (Work):	2,828 points
PCMark (Work – Battery life):	5 hours 19 mins



The SIM slot is underneath a removable back cover...which we thought should be removable in the first place.

Sony Smartband Talk

Price RM579
Contact Sony (Malaysia) Sdn Bhd
Phone 1 300 88 1233
Info www.sony.com.my

Specifications

Display: E-ink Curved 320x320 display
Connectivity: Bluetooth 3.0, MicroUSB
Others: Waterproof (IP68), voice, tap and gesture input, Microphone, on/off key

RATINGS

Performance



Features



Design



Value



Long Battery life
User-friendly

Can't see display at night
Price



The power button and volume button doubles as the only navigation tool for this Sony Smartband Talk



Keeping a Smart Lifestyle

Sony brings forth their latest smart wearable in the form of the SmartBand Talk SWR30 which is a band that keeps track of more than just time, it keeps track of your life *By Nicolas See Tho*

As smart wearables tries to cram more features, Sony takes a different perspective at their latest wearable by making it simpler for people to use, yet retaining most of the modern intelligence required for an enhanced lifestyle.

This device comes with a black waterproof strap that fits snugly on your wrist which clips on without any hassles. It has a volume control and a power dial located on its side which also doubles as the menu navigation buttons. The device syncs easily with any Android 4.4 device and it requires the companion application from Sony on the mobile device to start the synchronisation.

The smart device has some nifty features that are helpful for those who wants to monitor their healthy lifestyle such as the Lifelog app, which captures your movement, communications, entertainment and more; and gathers it all for you to view back at any time to see how you lived your life. The Smartband also sync notifications for Facebook, WhatsApp and emails so you will be updated without the need to pull out your phone everytime. Additionally,

this device is perfect for outdoor use as it is IP68 certified, making it the perfect jogging partner.

When it comes to actually wearing the device and taking it out on a test run, it proves to be a mixed result. On the positive side, this wearable has amazing battery life which only needs to meet the charger after 3 days of continuous usage, as well as the soft vibrations that alert you whenever there is a new notification comes in. This is a plus when compared to audio pings that most wearables have nowadays. On the downside, the device's E-ink display proves to be useless after sunset as it has no discernible light source built in.



CHIP CONCLUDE :

In conclusion, the Sony SmartBand Talk SWR30 is an interesting and handy device to have but at its price range, it may prove to be too expensive for most to consider. For those who can bear the cost however, you get a simple yet intuitive device in a nice little package.



A Professional Display for All Gamers

BenQ's XL2430T gaming monitor sets a new standard for others to follow *By Nazrin Zain*

Here at CHIP, we've seen our fair share of monitors - ranging from typical LCD displays to 4K monitors that requires some special voodoo magic to display properly. BenQ, a household name when it comes to projectors and monitors are upping their game with one of their latest gaming displays, the BenQ XL2430T Ultimate ESports Gaming Monitor.

The name might be mouthful, but the XL2430T is certainly no slouch. The 24 inch monitor features an LED display that has a maximum resolution of 1,920 x 1,080 pixels, and a Grey-to-Grey response time of 1ms. Not only that, the display also has a maximum refresh rate of 144Hz - which means that the monitor can keep up with the graphics card's render rate, to reduce tearing and such.


As far as inputs go, the XL2430T has one VGA port, one DVI-DL port, two HDMI 1.4 ports, one DisplayPort 1.2 port, one mic-in, as well as one headphone-out jack.

Much like many of the BenQ gaming monitors we've reviewed in the past, the XL2430T features a number of profiles that show different colour calibrations for different use cases. If these profiles aren't to your tastes, fret not as you can modify

the colours to suit different kinds of usage scenarios.

To help users change profiles easily, BenQ has also included an accessory called the S Switch which allows you to switch profiles and access the OSD menu without having to fiddle with the buttons on the monitor.

The monitor has an excellent colour accuracy, and works great regardless what you're doing. As far as games and movies are concerned, the XL2430T shows off its true potential when watching movies or playing games that have a wide variety of colour gamut.

This is evident in games such as League of Legends and Borderlands 2, where the environment is an explosion of colours and the effects are like rainbows on steroids. 

CHIP CONCLUDE :

The BenQ XL2430T is by no means a cheap monitor, but if you already have a high end gaming computer that is being hindered by the limitations set by a 60FPS monitor, the BenQ monitor provides you with an excellent option that not only has great colour reproduction, but a few bells and whistles thrown in as well.

BenQ XL2430T Ultimate ESports Gaming Monitor

Price RM1,699
Info BenQ Marketing & Services Sdn. Bhd.
Phone (03) 7954 7800
Contact www.benq.com.my

Specifications

Resolution: 1,920x1,080 @ 144Hz
Screen: 24-inches
Response Time: 1ms (GTG)s
Contrast Ratio: 1,000:1 (Native), 12M:1 (DCR)
Stand: Tilt
Connectivity: VGA, DVI, HDMI x 2s

RATINGS

Performance	
Features	
Design	
Value	
 Excellent colour reproduction Feature-packed	
 Price	



The S Switch panel allows you to easily access the monitor's OSD panel on the fly

Imation Link Power Drive

Price RM529
Contact Digital Paper Sdn Bhd
Phone Digital Paper Sdn Bhd
Info www.imation.com

Specifications

Storage Capacities: 16GB, 32GB, 64GB
Battery Capacity: 3000mAh
OS: Windows 8, 7, Vista, XP, Mac OS X 10.7 and higher
Interface: USB 2.0, Lightning

RATINGS

Performance



Features



Design



Value



+ Convenient 2-in-1 device

- Only available for iPhone 5 and above, and iOS devices with Lightning connector
 Price



The Imation Power Drive has a Lightning connector and USB, and only works with iPhone 5 and above



The button in the middle activates the power bank, and shows how much power is left



Power and Storage in one Package

Imation's Power Drive device fulfils your mobile storage and power needs *By Nazrin Zain*

The idea for power banks and external storage drives for smart devices is hardly new, but combining the two into one device is definitely a novelty right now. Imation, purveyors of storage devices and accessories has unveiled the Imation Link Power Drive, which aims to provide both power and storage to your Apple iOS-based devices.

At first glance, the Power Drive looks like your typical power bank and external hard drive, and has two cables connected to it – one of it being the Lightning connector for iPhone 5 and above, as well as a USB cable for you to connect to the computer.

The Power Drive is available in a number of storage options - 16GBs, 32GBs and 64GBs. The power bank portion of the device is rated at 3,000mAh across the board, which is enough to fully power a depleted iPhone 5, 5s and 6.

Using the Power Drive with your iPhone or iPads is relatively easy as all you need to do is to download and install the Power Drive app from the App Store, and connect the Power Drive device to your iOS device using the Lightning connector.

The app will detect the drive automatically, and you can then charge your iOS device as well as access any files that are stored in the Power Drive via the

app. The Power Drive is able to back up several file types from your iOS devices, including your contact list as well as the photos from your Camera Roll, which can also be transferred from one device to another directly without syncing with iTunes first.

The Power Drive is capable of playing back a multitude of media file formats; this includes MP3, M4A, MP4, MOV, BMP, GIF, JPG, PNG, & TIFF.

3,000mAh may not sound like much, but the charging speed of the Power Drive is relatively impressive, as we were able to almost charge an iPhone 5 in just over two hours. This is excellent for those who require a fast charge for their iPhones.

Our only gripe is that the Power Drive is not available for other platforms at the moment. Perhaps Imation will see that users with microUSB-ports would want it too, and make one for them as well.

CHIP CONCLUDE :

The Imation Power Drive is an excellent accessory for power users who are always on the move and fully utilise their iOS devices. Definitely worth a look if you constantly find yourself running out of space and don't want to lug around a Macbook with you.



Tiny PC for All

If you have been looking to get a PC just for work – why waste time and money to build a small tower, when this ECS offering can give you what you want at a fraction of the cost? *By Sharil Abdul Rahman*


The mantra 'more than enough' has been very prevalent in the tech industry for the past five to ten years. It's the concept of having just enough computing power to do simple tasks, without the need to go overboard with components. That is why products like tablets can make do in this era, as it is 'more than enough' for simple web and desktop publishing tasks. But what about the desktop? Well, ECS as an interesting proposition for you, with their product the Liva PC.

While the brand is well known for motherboards around the world, this is their first complete system set to be available for purchase by end users. The set comes in a DIY kit – well when we say DIY, it is more of a Snap-it-yourself kit, as the parts are in bags in the box, and your task is to connect the required pieces together. In the box you get a tiny motherboard – the size of your smartphone, the wireless card, and the plastic shell.

On board the motherboard sits an Intel BayTrail-based Celeron PC – more specifically the Celeron N2807, running at a base frequency of 1.6GHz, but is able to burst its speed up to 2.16GHz when needed. It also comes with 2GB of RAM,

32 or 64GB of storage (we got the 64GB version) and also a combination Wifi/Bluetooth card that slots into the msata slot on board. For peripherals you get two USB ports – one a USB2 and the other a USB3, HDMI port, VGA port, gigabit LAN and also a microUSB port for power. Yes, power – we will get to that later.

After fitting in and snapping together the parts, I just plugged the power, and pressed the power button on the front. The machine starts up without a noise – thanks to its fanless construction. You can get the Liva PC with or without an OS.

Running applications on the Liva PC is ok – if you keep to some guidelines. We ran 3DMark, and it scored a paltry 580 points. PCMark meanwhile scored 2714 on the Liva PC. You can see that it is not meant for intense computing. What it is good for however is simple, daily usage like typing up a word document, or web surfing. Imagine this being the communal PC, or the machine for the front desk. 

CHIP CONCLUDE :

It may not be the PC for gamers or heavy productivity scenarios. But for normal daily performance and work – it is more than enough. Plus, it is silent and cool running too.

ECS Liva PC


Price RM649
Contact Convergent Distribution (M) Sdn Bhd
Phone (03) 2144 1881
Info www.ecs.com.tw


Specifications

CPU: 1.6GHz Intel Celeron N2808
Graphic: Intel HD Graphics
RAM: 2GB
Storage: 64GB
OS: N/A
Connectivity: Wi-Fi 802.11 a/b/g/n, Bluetooth 4.0, 1x COMBO audio jack, 1x USB 3.0, 1x USB 2.0, 1x RJ-45 LAN, 1x HDMI, 1x VGA
Dimensions: 11.8 x 5.6 x 7.0 cm
Weight: 190g

RATINGS

Performance	
Features	
Design	
Design	

 Affordable as work PC
 Small and compact size
 Noiseless operation

 Awkward placements of USB ports
 Limited numbers of USB Ports
 Only for simple operations



BENCHMARK RESULTS

PCMark8 (Home):	2,704 points
PCMark8 (Work):	2,699 points
PCMark8 (Creative):	N/A
3DMark (Ice Storm):	580 points
3DMark (Cloud Gate):	N/A
3DMark (Fire Strike):	N/A



It comes with a complete suite of connectivity options.

Razer Blackwidow Ultimate Keyboard

Price RM439
Contact Ban Leong Sdn Bhd
Phone (03) 7956 6300
Info www.razerzone.com

Specifications

Switches: Mechanical
Roll-over key: 10
Interface: USB 2.0
Others: 1x USB ports, 1 x audio port

RATINGS

Performance



Features



Design



Value



+ Fast response rate
 Backlit for dim situations
 Customisable macro keys

- Awkward macro placement
 Price



You also get a USB port, headphones and microphone jacks on the side



Five different macro keys are located next to the tab/capslock keys



Be the Ultimate with Razer

While the name may be menacing, the Razer Blackwidow Ultimate is not as bad as it sounds. How it fairs? Read on *By Sharil Abdul Rahman*

Gaming keyboard was once as rare as a one terabyte hard drive a few years ago. Today, everyone and their uncle is making one for the market. Gamers have specific needs when it comes down to the tools that they use. It is not a surprise then that a gaming peripheral company comes up with a gaming keyboard specifically tuned for gamers – the Razer Blackwidow Ultimate.

Like all gaming keyboards out there, the Blackwidow Ultimate combines the quintessential typing experience, with high performance parts created for gamers in mind. Specifically, the Blackwidow line features Razer's own mechanical switches for longer 'Mean Time Between Failure' (MTBF) i.e. it will last for much longer to compare with its competitor. Razer claimed it will lash 60 million key strokes, to compare with the competitor's 50 million.


The new Razer mechanical switch is comparable in experience with Chery MX Blue mechanical switches. This means that they has a more metallic 'clicky' noise than the other. Razer also offer an orange key version, which is dubbed 'silent'.

You get the standard 101 key layout, in the four-island groups with the BlackWidow Ultimate. You also get a bank of additional

macro keys just to the left of the capslock button. These keys can be assigned through the Razer Synapse software. Here, macros for games, programs or even system shortcuts can be assigned to the five extra keys.

Using the Blackwidow Ultimate is quite an experience, as the keyboard is extra-long – thanks to the bank of macro keys. It is also weighted nicely, so that it will not move around that easily on the table.

My biggest comment is that the location of the extra macro keys makes typing on the keyboard a bit awkward. If you are a touch typist, your hand location will automatically assume that the macro keys will be the last column of the keyboard.

However, for gamers it is perfect as it is within reach of the WASD key arrangement – making executing macros a quick flick to the left rather than any other location. 

CHIP CONCLUDE :

The Blackwidow Ultimate brings a bit of sunshine in the world of gaming keyboards. While it can do better in certain quarters, it is good enough that it should be in your consideration list.



A Phone for the Penny Pincher

The Huawei Honor 3C Lite is light on your wallet

By Nazrin Zain

When the Huawei Honor 3C smartphone arrived in Malaysia, it was touted as one of the most affordable smartphones in the market, featuring a high-definition 5.0 inch display and an octa-core processor at an unbelievably low price. If that phone is still above your budget, fret not as Huawei has just the device for you, in the form of the Huawei Honor 3C Lite.

The Huawei Honor 3C Lite is in many ways similar to its big brother the 3C. Both have 5.0 inch HD displays, they each have an 8.0MP Sony BSI camera, and both have support for dual-SIM. The difference lies mainly in the internals, as the 3C Lite is powered by a 1.3GHz MediaTek MT6582 quad-core processor, 1GB of RAM and 16GBs of built-in storage, which can be expanded up to 32GB via a microSD card.

It runs on Google's Android 4.4 Kit Kat operating system, which is just one step below Lollipop. At the changes may be few, but as we tested the phone, the difference is quite noticeable under several scenarios. In normal use, the 3C Lite is pretty good. The UI is snappy, web-browsing is a charm, and there is hardly any lag noticeable when watching 720p videos or streaming YouTube videos.

The phone does get warm during extended usage, but if you're sticking to just browsing, watching videos and messaging, this is hardly an issue. That being said, running one too many apps in the background does result in sluggishness, which can be fixed by closing the ones you're not using, and just keeping the ones that you are.

Due to the fact that the 3C Lite only has 1GB of RAM, memory and graphics-intensive apps such as games don't run very well on the phone. Simple games such as Candy Crush Saga and Robot Unicorn Attack run well enough, but titles like Asphalt, Spider-Man Unlimited and such will definitely see a very noticeable hit in performance.

The 3C Lite's 2,000mAh battery does an alright job at keeping the phone alive for a majority of the day, but if you're constantly on the phone, messaging or playing games on it, it is obviously not enough.

CHIP CONCLUDE :

It might not tick all the boxes that you'd like it to tick, but the ones it does is good enough to make it a great daily-use phone that is also lite (see what we did there?) on the wallet.

Huawei Honor 3C Lite

Price RM399
Contact Huawei Malaysia Mobile Hotline
Phone 1 800 22 0086
Info www.huawei.com/my

Specifications

Operating System: Android 4.4 Kit Kat
Processor: 1.4GHz quad-core processor
Frequency: HSDPA 2100/900 EDGE / GPRS / GSM 850/900/1800/1900
RAM: 2GB
Storage: 16GB (expandable up to 32GB via microSD)
Screen: 5.0-inch HD (1,280 x 720) LTPS (Low Temperature Poly-Silicon) LCD
Connectivity: Bluetooth, USB, Wi-Fi 802.11 b/g/n, DLNA
Others: 8-megapixel front camera, Vice camera 5,000,000 pixels front camera
Dimensions: 139.5 x 71.4 x 9.2mm
Weight: 140g

RATINGS

Performance	
Features	
Design	
Value	
Price	
Features	
Performance	

BENCHMARK RESULTS

Antutu Benchmark: 19,213 points
3DMark (Ice Storm): 3,144 points



It also has support for dual-SIM, one GSM/CDMA and one GSM only simcard

Lenovo Tab S8

Price RM630
Contact Lenovo Technologies Sdn.Bhd
Phone 1 800 80 8575
Info www.lenovo.com/my/en

Specifications

Operating System: Android 4.4.2
Processor: Quad Core 1.86 GHZ
 Intel Atom Z3745
Display: 8-inch 1200 x 1920 IPS LCD capacitive touchscreen
Memory: 2GB
Storage: 16GB expandable up to 32GB via microSD
Connectivity: GSM/HSPA/LTE, Bluetooth v4.0, Wi-Fi 802.11 b/g/n
Others: microUSB 3.0, FM radio, GPS, 8MP rear camera, 1.6MP front camera

RATINGS

Performance



Features



Design



Value



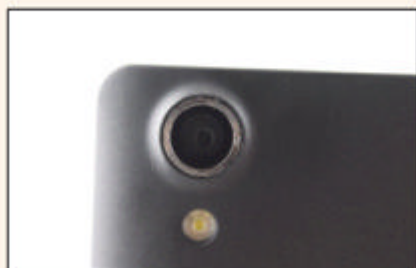
+ Light and slim design
 Powerful audio
 Beautiful display



- None

BENCHMARK RESULTS

3DMark Icestorm Extreme: 8,328 points
3DMark Icestorm Unlimited: 15,696 points
3DMark Icestorm: Maxed out!
PCMark 8: 4,437 points



This device has a 8MP camera which is good for users who love to take snapshots of events or just photography in general



A Slim Powerhouse

Beautiful tablets comes in many shapes and sizes but for Lenovo, theirs came in the form of the Tab S8-50

By Nicolas See Tho

The competition is rife among tablet manufacturers as they create new products featuring the latest technology and cool design. Lenovo is no different, and have brought out their big guns with the Tab S8-50 tablet, which is aimed at providing powerful performance within your palms reach.

The first noticeable design aspect of the device when taken from the box is its beautiful borderless display. It is complimented by a sleek black design, and a light yet slim body profile. It has the usual microUSB port located on its bottom, while the volume controls and power button remain on the side of the tablet. It also has in-built dual speakers that are lined up on the top and bottom of the device.

This device comes with a variety of new features as well as innovations to the fore. It is the first Lenovo device with the Intel Bay Trail processor. It features the Lenovo DOit Apps which allows you to do more by sharing with other Android devices without needing any wireless network. It also comes with LTE connectivity ensuring that

you can maintain a steady stream of data on the go.

When push comes to shove, this tablet is no pushover when it comes to performance, as it delivered great results during our benchmark tests such as 3DMark and PCMark 8. The tablet also handles well on high end applications from the Play store such as World of Tanks and Hearthstone, with good frame rates on both games. Another plus point is the powerful audio delivered when watching movies on the device, which comes as an added benefit for those on the go. It also has a powerful camera which gives users a pristine view of their object.

CHIP CONCLUDE :

The Lenovo Tab S8 is a serious contender in the tablet market as it has the price range to reel in people on the fence and a complementary performance to boot. For those looking at a powerful yet affordable device, this might be worth looking at.



Monitor Thyself for Cheap

Instead of spending hundreds of ringgit for a fancy band on your wrist to monitor your health, why not spend tens of ringgit on this Mi? *By Sharil Abdul Rahman*

You can count with one hand companies that are coming out with health monitors, but there is only one that you can get for the price of a good dinner for two at a mid-range diner in KL. While the other health monitor bands are in the range of the hundreds, some passing the RM1000 mark, this one from MI cost only RM59, and it is as capable as the rest.


While the brand Mi is well known for their mobile phones, the Mi Band was an odd announcement coming from the company Xiaomi. Instead of more mobile phones, Mi Band was announced to the world. Was the company out of their mind? After using the band for quite some time, the answer is: 'No'. Why? Read on.

Like all other health monitor bands, the Mi Band is shaped and designed to be worn on your wrists. As it is without and display, it is suitable for both left and right handers in either orientation. It can even be slipped into your shoe, or hung around the neck. The aluminium and polycarbonate body of the Mi Band bellies the complex miniaturised electronics that is in this device, barely bigger than two 5 sen coins laid side by side. With the included rubber strap, the Mi Band is rated IP67 – which means that the Mi Band is both water and dust resistant. Bring it to the beach, in the sea, or under the cleaning shower after the

swim – it will survive with nary a scratch.

There are quite a number of data points that is collected by the Mi Band. This includes sleep cycle, step taken and calories burn in a day. As this is designed to be worn all the time, Xiaomi has designed the Mi Band to be light and hypoallergenic to use. The data collected can then be transferred via Bluetooth to any Android or iOS device you own, into Xiaomi's app.

Another function that is only usable with MIUI-installed devices is where the Mi Band can be used to unlock your device by just being in proximity to it. A cool gimmick in my opinion. Plus, if you want to, the Mi Band is able to notify you that something is happening on your phone – it has no screen to tell you what the event is, so you have to take your phone out.

Of course you will ask how long does the Mi Band last on a charge – well, how about 30 days on a single zap of juice? That is an incredible number to say the least. 

CHIP CONCLUDE :

The long battery life, bevy of collected data and its looks makes the Mi Band a must have for those who want to monitor themselves, themselves. Plus, it is so affordable!

Xiaomi Mi Band

Price RM59
Contact Xiaomi
Phone 1-800-281-182
Info www.mi.com/my/

Specifications

Battery: 41mAh (30 day standby time)
Connectivity: Bluetooth 4.0
Notification: LED
Dimensions: 36 x 14 x 9 mm
Weight: 5g

RATINGS

Performance



Features




Design




Value



 Great battery life
 Affordable
 Simple to use



 Limited to Android 4.4
 and iOS 7
 No display



The hypoallergenic band is adjustable to fit wrists of different sizes

THINK

The Incredible Distracted Man, Part 2

I now have an extra month of Pebble ownership, usage and general hacking under my belt and it's been an eye-opening experience By Tim Lee

Last year, I was asking myself why I needed emails and chat messages on my wrist anyway. Blasphemous thoughts those were. I've now found that a smartwatch lets me concentrate on what information needs immediate handling and what can be shelved for later. If I'm in a meeting and a call comes in, a quick glance at my wrist tells me if it's worth answering, whereas digging out my big phablet obliges me to answer the call. I'm also guilty of driving and Pebbling - a chat message comes in about an upcoming appointment, I bring up my watch and press a button to send a canned reply, while my phone sits in its centre console compartment. It's a lot less suicidal than trying to type one-handed on a phablet in fast traffic.

The Pebble's battery life has been exceptional. By sticking to simple analogue faces without pointless ticking second hands, I've been able to go for seven days on a single charge - even with loads of daily notifications and the occasional run tracking. Take that, Android Wear and future Apple watch owners! I've stopped using the battery-hogging sleep tracking app because I don't need to know how many times I twist and turn in the night. As a fitness device, the Pebble isn't great because it's lacking a heartbeat sensor and GPS chip, but I don't need that level of data anyway.

One great thing about a black plastic Pebble is that it's discreet, not like a big and fragile chrome computer on my wrist. I've only heard one compliment on my choice of wrist-wear and that was from a fellow geeky Pebble owner. With a black steel strap, the Pebble is classy enough to wear with a work suit while hardy enough to take swimming. The upcoming Pebble Time will have a colour e-paper screen that lasts as long as the current grayscale display, along with a microphone for voice memos and speech-to-text transcription. That would make it a lot more compelling to new buyers in a smartwatch landscape of shiny Android Wear devices and the potentially massive-selling Apple watch.

On the other hand, smartwatches will just be a blip in the story of human-computer interaction. Google may have pulled

the plug on its Glass after stupidly thinking people would love being recorded by Glass users but augmented reality isn't dead. Microsoft's HoloLens is a bit bulkier and uglier but it provides a 3D view superimposed over your existing vision, with Kinect-style infrared cameras tracking hand movements for gesture based interactions. It could be a godsend for people who work with lots of data daily - imagine the typical financials wizard waving her hands around in the air, issuing buy-sell orders to data that only she can see, all while having drinks at a trendy


alfresco cafe.

Wait, that's likely to look more weird than interesting. I can imagine augmented devices moving forward into tiny screens implanted in the eye's lens and subdermal microphones for voice commands, all the way to brain chips that translate neuron activity into Google searches. In the near future, I wouldn't mind a wrist mounted smartwatch-smartphone hybrid for processing and data input, with Glass-style glasses for display.

We're all awash in a sea of data from our work and personal lives and that deluge will only get bigger. Some will unplug from the grid and run for the hills while most of us will hopefully lead richer lives by having colleagues, friends and family flung across the globe, with both a greater sense of belonging to the whole human race and also having enough information to make good local decisions.

Maybe having all that data populating our senses will lead us to a

constant state of distracted bliss - research has shown that the human brain finds multitasking both pleasurable and stressful, that the act of bouncing between different online activities juices up hormones like cortisol, adrenaline and dopamine, even though our primate brains are much better at focusing on single tasks. I've gone on many a Wikipedia click-trance, hopping for hours from a page on semiconductors to vacation spots in the Solomon Islands, then going to bed with a head buzzing full of happy nothing.

Maybe, in the near future, I'll need a virtual assistant to go with that wrist phablet... 



GEEKMOMMY

Screen Off Before Bedtime



What is the last thing you reach out for before turning in? Many of us would say our Smartphones or tablet, either to turn on the alarm or to read our Facebook news feed one last time. We have heard it many times before that reading from your smart device before bed time could harm our sleeping pattern. The question is how? By GeekMommy

Blue Light

The short-wavelength enriched light from electronic devices, also known as blue light, suppresses melatonin production,



impacts the circadian clock and increase alertness. Blue light mimics the sun, and melatonin is not produced during the day. So not only does reading from a Smartphone or tablet makes it harder for you to fall asleep, but it also impacts how sleepy or alert you are the next day.

According to a release by Brigham and Woman's Hospital, this is a real concern for sleep deprivation due to the extremely powerful effect that light has on the body's natural sleep/wake pattern. The best solution is to read an actual, printed book if you need to stimulate your mind before bedtime.

Turn off the TV

This applies for children too. A research from the University of Auckland in New Zealand proved that the more screen time kids get before bed, the later they went to bed. Their sleep could be delayed because this, thus disrupting their sleep cycles. The same applies for adults. Set a habit to retreat to the bedroom at least half an hour before bedtime to unwind with an actual book.

Filter, filter, filter

If you absolutely have to check your tablet, Smart phone or computer before bed time, there is a safe solution. Invest in a

filter that blocks out blue light. There is an app available for Android and iOS that changes the blue light into something a little bit more late-night friendly. For computers, you could try to use F.lux that makes the colour of your computer's display adjust to the time of day, warm at night and like sunlight during the day.

**Tips to "screen off" successfully**

1. Keep the Smartphone away from the bedroom. I find that it helps to charge electronic devices in another room. Hence, reducing any urges to check on phone the minute I am awake or when I find myself still awake in the middle of the night.
2. Devote screen off time. Put down your Smartphone the minute you reach home and cuddle your kid, furkid or love ones. Spend some real time with them instead of taking more photos or videos of them.
3. Subscribe to newspaper/magazines. If the urge to read one is still lacking, even if you have paid for the subscription, this tip may be a lost cause. But seriously, read a real printed book or magazine. Let the words come alive instead of watching a video. 📖

Geek Mommy tries to makes sense of the tech world for the less techie while managing a household, a job and keeping a toddler busy. More of her musings at <http://geekmommy.info/>

TOUCH

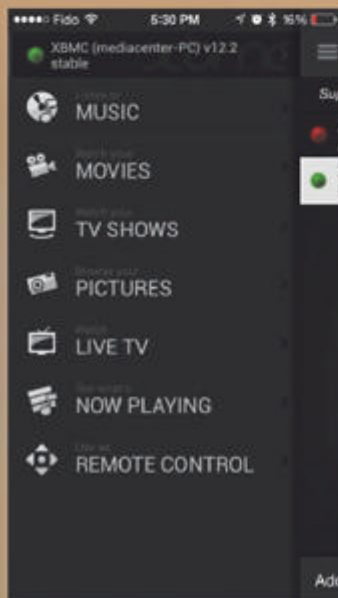
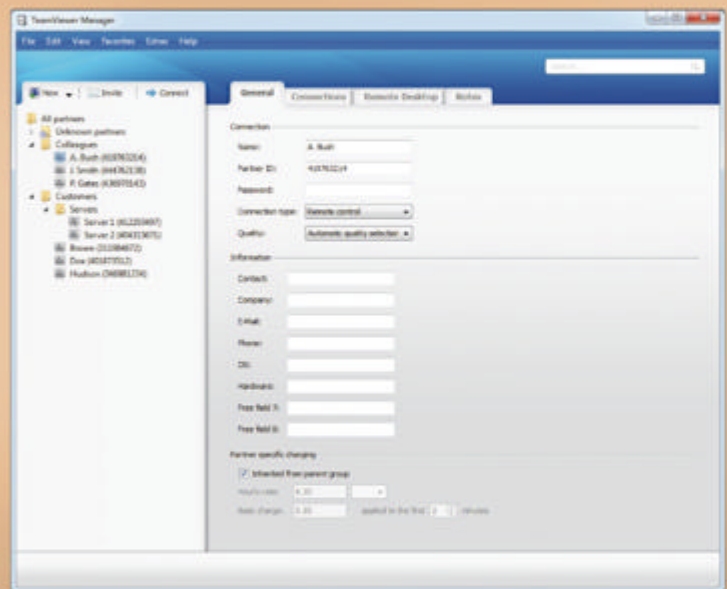
Take Control Remotely

While you are on the move, sometimes there may be a period where you need to remotely control your machine from a different location altogether. This means that a way to remotely log into and access your computer is needed. The apps below will help you achieve this task **By Nicolas See Tho**

TeamViewer

Platform: Android,iOS, Blackberry, Windows Phone

Have you ever wished that you could do more on your smartphone? Perhaps play an intensive round of Dota 2 or watch a stream on your favourite streaming website, but you are unable to because of the limitations on your smartphone or tablet. With TeamViewer, you can now do that thanks to the power of your PC. A simple installation which links your PC to the device of your choice allows you to control your PC with your mobile device while displaying exactly what you see on your desktop. So take control of your PC from anywhere anytime, but take note, your PC has to remain running in order for this application to work.



XBMC remote

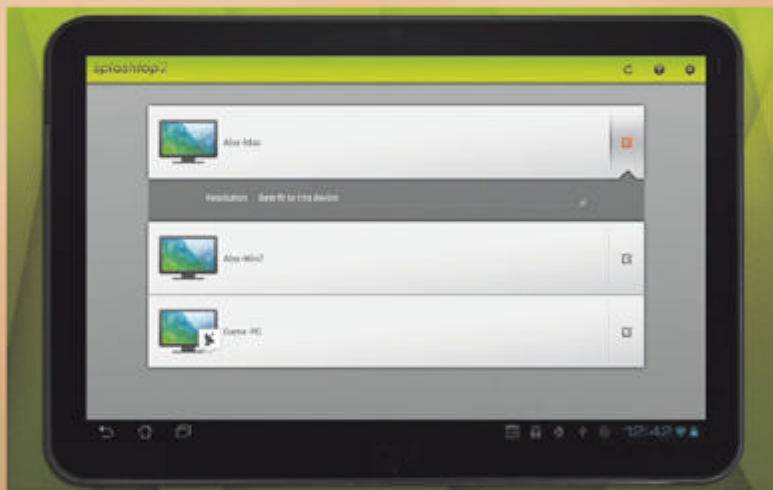
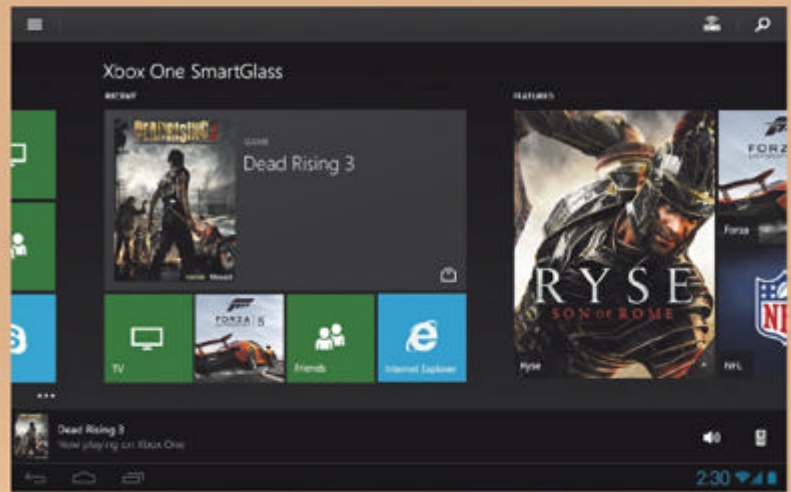
Platform: iOS, Android

XBMC is a software that your media centre uses to stream content from your NAS to your HDTV or PC. Normally you would have to connect a Bluetooth mouse or keyboard to navigate your way to your media content but with this remote app, you can do all that from your smartphone or tablet. With this app, you would be able to view your playlist, browse, and play them remotely - all from a single device.

Xbox Smartglass

Platform: iOS, Android, Windows Phone

The Xbox SmartGlass transforms your mobile phone or tablet into an intelligent remote that communicates with your Xbox console. This app allows you to navigate through your Xbox dashboard, pause and rewind your favourite movie, swipe, pinch, and tap to surf the Web while using your device's keyboard for text input. Besides that, your phone or tablet can also become in-game companions to help you enjoy your game better.




Splashtop 2

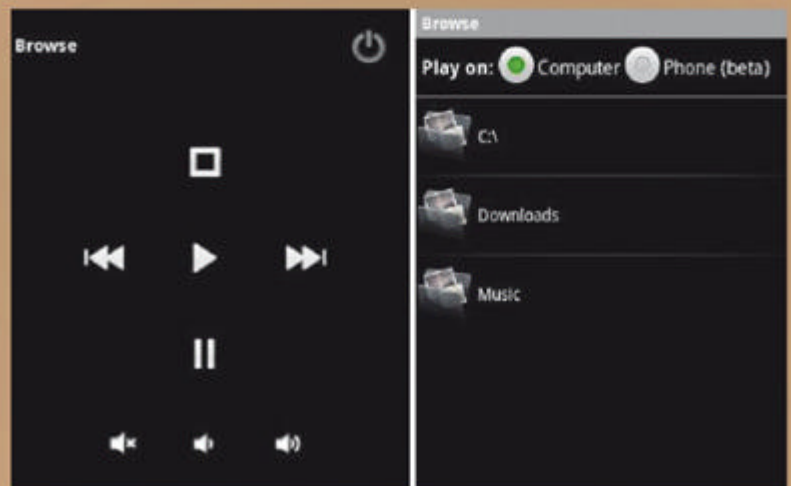
Platform: iOS, Android, Kindle, Blackberry, Windows Phone

Splashtop is another streaming service which allows you to easily enjoy the full function of your desktop via your tablet or smartphone when you are away. With this app, you can fully view, edit your file remotely without the need to sync or transfer. Because the main source is still your desktop, you can enjoy graphic intensive games via your tablet such as Skyrim and such. You can also stream music from your PC to your device with no loss of audio quality.

Gmote

Platform: Android

Gmote is a simple app that basically turns your Android smartphone into a remote control for your PC to navigate through your music and media files. This app can also be used as an emergency touchpad, and keyboard as well as stream music from your PC to your Phone. It also allows you to use the app on a 3G data network as well as a Wi-Fi network. 



WATCH

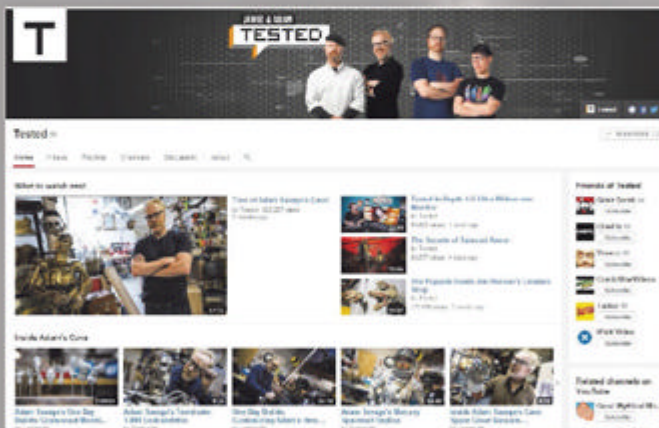
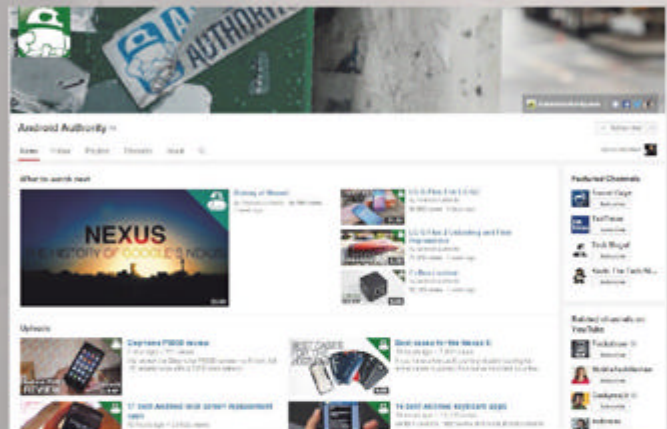
Eclectic Youtube

With over a billion users accessing it every day, and hundreds of millions of hours of videos watched online, no wonder Youtube is the number one video content website right now. 300 hours of new video content is uploaded every minute, and the topics has a diverse range – from geopolitics, to sci-fi discussion; all the way to kids creating content for the first time. Here is a small selection of Youtube channels that may be up your alley. Check them out – what's the harm in that? It's free too

By Sharil Abdul Rahman

Android Authority

One of the bigger channels focusing on Android news and reviews, this channel has over one million subscribers, and feature content such as latest review, Android news, podcast and much more. They also feature tips, tricks and Q&A corner for newbies to find out how to make full use of their Android device



Tested

A brainchild of four passionate people, this channel features the two host of Mythbusters – Adam Savage and Jamie Hyneman, plus Will Smith (no relation to the singer) and Norman Chan as they talk about the latest technology, ranging from breakthroughs in science, amazing tales of exploration, and discoveries in nature to emerging technologies and new consumer products that promise to change our everyday lives. Plus, they make cool videos too.

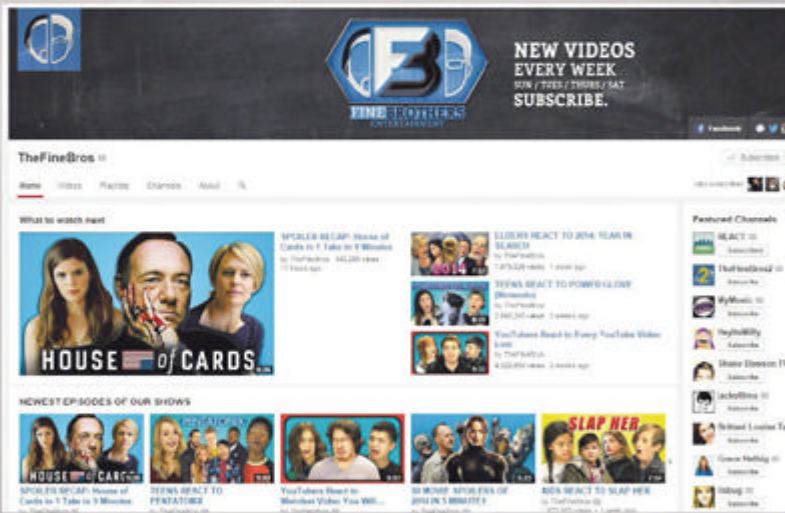
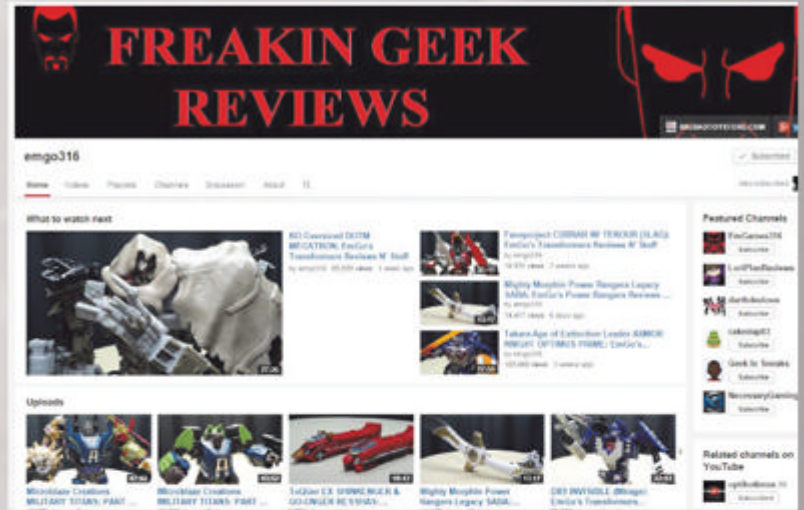
Geek & Sundry

This youtube channel was started by Felicia Day, a TV actress, to produce and release new content for Youtube, as part of YouTube's 100 million dollar original channel initiative. Originally based around an unscripted video show called The Flog, it now boasts a slew of shows, including TableTop – a table top board game show where host Will Wheaton (yes, from Star Trek) plays with his guests on a board game that rotates every two weeks.



Emgo316


If you are a fan of Transformers, check out this channel. Emgo316 (who calls himself 'The Freaking Geek') showcases and reviews the latest toys on the market – usually involving Transformers. With his humorous way of explaining (in detail) the intricacies of the toy du jour, it is worth a moment just to hear him trying to figure out how to transform a Transformer on screen.

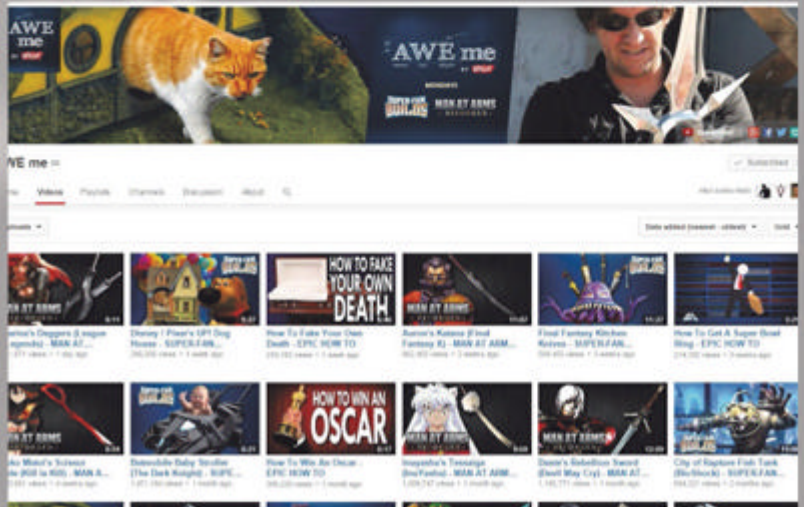


The Fine Bros

If you have ever seen a youtube video of kids in succession reacting to a topic, it is most likely that it is from The Fine Bros. With four main shows – Kids React, Teens React, Elders React and Youtubers React, it is interesting to see reaction from the participants on the topic of the day. Memorable videos – Kids react to Nintendo NES, Elders react to men giving birth – and on a serious note – Teens react to Malala Yusofzai.

Awe ME

If you are into weapons – especially fictional weapons, check out this channel. The team at Men at Arms and Men at Arm Reforged are involved in many of the bladed weapons we see on the silver screen. They have now turn to recreating fictional weapons – from games, anime and literature – into real life armaments. They have created weapons such as Sokka's Meteor Sword from Avatar: The Last Airbender, Ichigo's Zangetsu from Bleach, and even The Sword of Omens from Thundercat. 



SHARLTO COPLEY DEV PATEL AND HUGH JACKMAN

FROM THE DIRECTOR OF *DISTRICT 9* AND *ELYSIUM*

CHAPPIE

HUMANITY'S LAST HOPE ISN'T HUMAN.

IN CINEMAS 5 MARCH

EXPERIENCE IT IN IMAX 2D

SonyPicturesMalaysia

Buena Vista Columbia TriStar Films (M) Sdn Bhd (119122-P)

MRC

ChappieMovie.net

SONY

COLUMBIA PICTURES

in Motion

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EXCLUSIVELY FOR ALL READERS OF **CHIP**

TO WIN, SIMPLY ANSWER THE QUESTIONS BELOW!

1. Who plays the young scientist Deon in the movie Chappie?

■ Sharlto Copley ■ Hugh Jackman ■ Dev Patel

2. Chappie is my favourite robot because

(not more than 25 words)



5x

LIMITED EDITION
CHAPPIE T-SHIRTS
WORTH RM 250 EACH



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CHAPPIE CANVAS BAGS
WORTH RM 200 EACH



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LIMITED EDITION
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Cut out this section and mail to:

CHAPPIE c/o Online Dynamics (M) Sdn Bhd, A-5-07 Block A, Neo Damansara, Bandar Damansara Perdana, Jalan PJU 8/1, 47820 Petaling Jaya, Selangor Darul Ehsan.

Rules and Regulations: Sony Pictures reserves the rights to replace all prizes without prior notice. Winners will be notified by mail or phone. Closing Date: 31st March 2015.

NEWS

The Hunt for Monsters Starts with Majora's Mask

Recently, local Nintendo 3DS owners were treated to an event that marks the arrival of two new 3DS game titles - Monster Hunter 4 Ultimate and Legend of Zelda: Majora's Mask. We were there to cover the launch at Tropicana City Mall

By Nicolas See Tho



Gamers getting in line to collect their pre-ordered game and also hoping to be able to be one of the first few who get to play the game



Fresh out of the carton, we managed to get our hands on one unpackaged Monster Hunter 4 Ultimate


The weekend before Chinese New Year has proved to be an eventful one, as two anticipated titles for the Nintendo 3DS were released at Tropicana City Mall. These two new titles are Monster Hunter 4 Ultimate, and Legend of Zelda: Majora's Mask 3D

Monster Hunter 4 Ultimate returns to the Nintendo 3DS and 3DS XL, with new features while bringing back all the good

features from its predecessors. For the first time ever within the series, players can now play with each other over Wi-Fi, unavailable previously. This means that players who find it hard to get a party of members can now do so without the hassle of meeting one physically. This does not mean that the local play mode has been taken out however. This iteration of the game brings back classic favourite bosses such as Tigrex, Diablos, Crimson Fatalis, Kirin, and many more. Players can also enjoy new maps to hunt on with a variety of new game mechanics, plus new weapons to craft and brew.

The Legend of Zelda: Majora's Mask 3D meanwhile brings back a Nintendo 64 classic game to the Nintendo 3DS. This time around, Majora's Mask 3D provides

stereoscopic 3D graphics, touchscreen controls, and gyroscopic features. The game features the main character named Link cycles who has to save the Land of Termina from being crushed by its moon while the game world itself revolves around a three-day cycle. The remake also features altered boss battles and adds a fishing component to the game. Throughout the game, Link will discover different mask's which gives a different effect while traveling through time with his ocarina and to repeat the three-day cycle.

The new Monster Hunter 4 Ultimate and Legend of Zelda: Majora's Mask 3D are already available and are sold in game stores nationwide with both being priced at RM 139.00. 

www.nintendo.com



Those looking for a bargain found some interesting titles here for cheap at the used items stand

PLAY

GAME REVIEW

The Thrill of the Hunt

By Nicolas See Tho



This cute little guy here is a veteran of the series called Zinogre, but don't let your guard down, as he can easily zap you by summoning lightning down from the heavens



Behold the mighty Molten Tigrex, a creature that definitely requires teamwork from fellow hunters in order to complete the mission

There are no shortages of fans when it comes to a franchise as well-known as Monster Hunter - with the latest release of Monster Hunter 4 Ultimate for the Nintendo 3DS, the response by fans within expectation - very enthusiastic. This month, we are bringing the excitement straight to you in the form of a game review fresh from the release party.

For the uninitiated, the Monster Hunter series is a game that puts players in a world where dragons and other mythical beasts run rampant, and it is your task to enter pre-determined dungeon raids to hunt, gather and slay these beasts, either alone or with up to 4 friends. Take note that doing so requires hours upon hours

of practice as each monster represents a different degree of toughness.


Coming back to the game, MH4U brings back all the goodies from its predecessors while taking out elements such as swimming which was problematic in the older series.

Some new features added in includes a new monster species, the notorious Frenzy Virus (which makes the monster more aggressive than usual) and so on. Players gets to choose between 13 different weapon types such as Sword and Shield, Dual Blade, Lance, GunLance, Hunting Horn, Hammer, Great Sword, Long Sword, Light/Heavy Bowgun, Bows, Switch Axe, Charge Blade and the new Insect Glaive. Each of these weapons have different attack styles while providing unique dynamics when played within a team.

Another new content added on to the game is the Wi-Fi connectivity option, which makes it the first ever within the game franchise to include the option. This allows players to play with each other over the Nintendo Network for the first time.

It negates the old problem of not being able to find hunting mates by allowing easier match-ups. As the game progresses, players will meet different re-skinned monsters to battle against; take note that these are different monsters altogether with different move sets, so the fact that you have previously vanquished is of no consequence at all...

Because of the game's deep mechanics, players are expected to achieve a certain degree of aptitude in order to survive the late stages of the game, which can be tedious as you will have to grind for items longer and more often, becomes too technical. This might turn some new players off, but once you get the hang of it, the rest is as they say, history. The new online functions as well as the wide variety of play styles will allow the game to accommodate all player types nicely.

So for those who have not already joined the Monster Hunter bandwagon, it's not too late to do so. Thus, get out there and have a happy hunt. May The Desire Sensor treat you well. 

ACTION RPG, TEAM-BASED ACTION

Monster Hunter 4 Ultimate

DEVELOPER Capcom


INFO www.monsterhunter.com


SYSTEM REQUIREMENTS

PLATFORM : Nintendo 3DS

RATINGS

Gameplay Graphics Sound Replayability 

 Interactive gameplay, Deep gameplay mechanics with tons of content, Has Wi-Fi connectivity

 Very technical at later stages of the game, Repetitive grind for level progression

GAME REVIEW

Key to your Heart(less)

By Sharil Abdul Rahman



Look at Sora go. All red and ready for battle



180 degrees? Hah! I'm doing a 360 here. And Goofy is my witness!

After announcing Kingdom Hearts 3 for the Playstation 4, Sony threw a bone for the older console with the announcement of HD remasters of original Kingdom Hearts and Kingdom Hearts 2 games. After a waiting period, the remaster of the famous Disney/Square Enix is now available. What do we think about it? Read on cowboy.

To the uninitiated, the original Kingdom Hearts 2 features Sora, the main character's travels in the world of Disney – a year after the end of the original game. However, Sora now faces a different challenge as instead of the Heartless, he now also has to face the Nobodies – the antagonists that is created from the bodies of the people


that their hearts was stolen from. It gets better – He also need to face not one, not two – but thirteen generals of the Nobodies that makes up Organization XIII, the head honchos of the nobodies. All of this while he needs to find ways to reconnect the worlds again. He has a tough job indeed.

Sora as the main character wields the Keyblade – a key-shaped blade weapon that serves as an offensive weapon as well as a plot device, as the Keyblade unlocks connection between the Disney worlds in game at certain points of the game. Among the worlds that is available in the game includes Agrabah (Aladdin), The Land of Dragons (Mulan), 100 Acre Woods (Winnie the Pooh) and Twilight Town – the new world created just for the game.

Kingdom Hearts HD 2.5 Remix, like the previous game, features three games in one disc – Kingdom Hearts II Final Mix, Kingdom Hearts Birth by Sleep Final Mix, and Kingdom Hearts Re:coded, as HD Cinematic Story videos. Among the changes for the games are new video outputs (480p, 720p, 1080i

and 1080p), remastered graphics and re-orchestrated soundtrack, Playstation 3 trophy support and for the case of Kingdom Hearts Birth by Sleep Final Mix, a control adjustment as the original game was made for the Playstation Portable.

Starting the game did give me some nostalgic feeling, as I played the game when it was still on the PS2. The migration to the Playstation 3 platforms does wonders to the characters, as they receive the textures and models to befit the HD moniker, and also gameplay tweaks as new modes and features are introduced in the core game. This includes a new difficulty mode (Critical Mode), new cut scenes, and a new Theatre Mode, where previously viewed cut scenes can be watched again – but now with the ability to change language between English or Japanese.

This is the perfect ode to the franchise, as we await the arrival of the newest successor of the series soon. 

ACTION JRPG

Kingdom Hearts 2.5 HD Final Mix


DEVELOPER Square Enix


INFO www.kingdomhearts.com


SYSTEM REQUIREMENTS

PLATFORM : Sony Playstation 3

RATINGS

Gameplay	
Graphics	
Sound	
Replayability	

 Remastered graphics, Increased difficulty challenge, Extensive tweaks and add-ons to the original game

 Tedious minigames



Battery Not Charging? Not a Problem!

If your notebook batteries are not charging even though the device is connected to the power supply, then follow these few simple steps to solve this problem By Markus Hermannsdorfer

It is a long cable between the wall-plug and the battery of your notebook - and unfortunately, many points of error as well. If the battery does not charge even when the notebook is plugged in, then it is troubleshooting time. Follow our step by step guides in determining if it's the hardware that is the culprit, or the fault lies with the operating system itself.

When you need more than just a simple fix

If you can't resolve the battery problem with the help of our tips here, then an expert help is definitely needed. We will tell you the means to help solve the simpler problems, but we do advise to escalate any serious problems to the expert technicians available on call, provided by your notebook manufacturer. But, if you follow the tips we present here, we can guarantee a full recovery for your notebook ninety percent of the time.

Troubleshooting Tips

1 Check the plug connections

Firstly, try another power point. If the battery still does not charge, then check whether all the connectors involved are correctly and firmly plugged in. If yes, then do not forget to check the connections to the external power supply.

2 Determine status of the battery (Software)

If the power supply is not the problem, then the battery could be defective. To check this, install the Battery Info View tool. Let the program run for some time while plugged in as well as under battery power. Take a look at the history log via "View | Show Battery Log". You also get general information under "View | Show Battery information". The value "Battery Wear Level" will inform you about the consumption of the battery. Do take note that the value here is not always true for older devices. Also check the "Full battery time for the current activity" value. If the value is under one hour for a freshly charged battery, then the battery is practically dead.

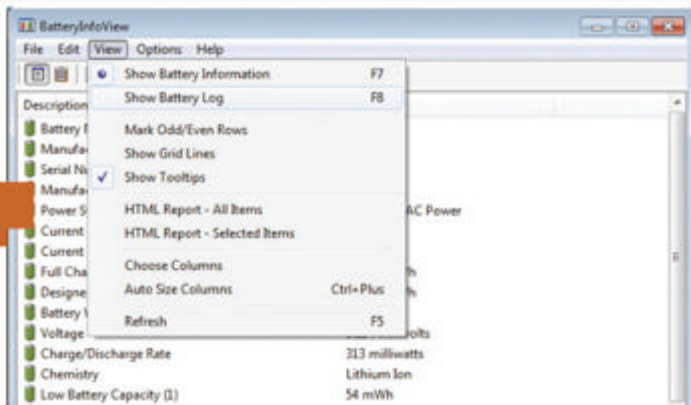
3 Determine status of the battery (Hardware)

If you cannot start the device because the battery is already empty, then remove the battery. Usually it can be removed with a simple unlatching or two. Clean the battery contacts using a soft cloth. Now connect the power supply, but do not put the battery back in as yet. If the notebook starts, then the problem is with the battery and it must be replaced.

4 Check the power cable for breaks

Now check the power cable for breaks by bending it a little bit. You may see some exposed cable when you do this. If you

2



3



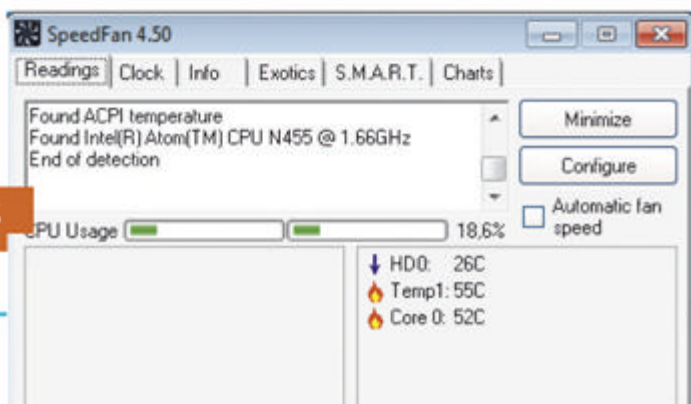
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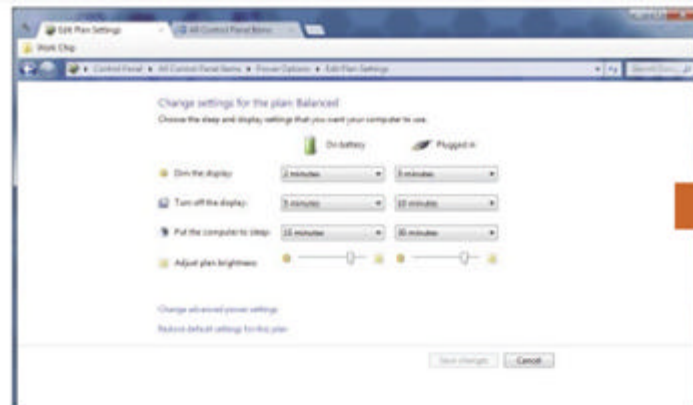
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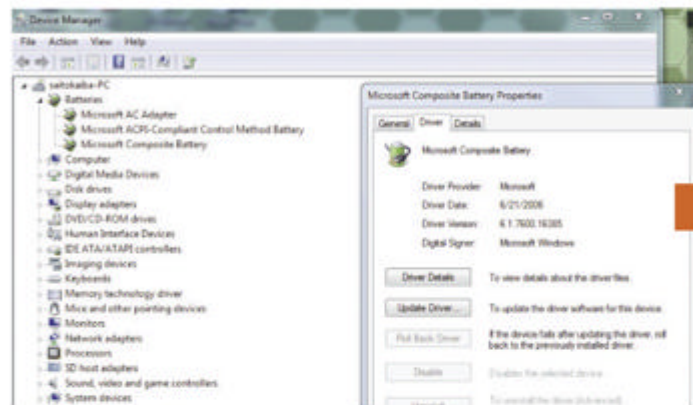
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8



have a pet at home then check whether the dog or the cat have nibbled at the cable. They may have contributed to the breaking of the cables.

5 Check power adaptor

If the laptop still does not want to charge, then check the power adaptor. Is it unusually hot? Is the cable connection loose? Is there a burning smell? If yes, then replace the power adaptor.

6 Resolve problems of overheating

If the notebook is overheating, then it may be that the battery sensor reports a full battery even though this is not the case. Let the computer cool down and ensure that there is enough ventilation around it. Use the free tool Speedfan to solve heating problems due to failed or weak fans.

7 Reset power settings

The next point to check are the power options in Windows, which can be accessed via "Start | Control Panel | System and Security". As the search for errors can be very time-consuming, you should "Restore the standard settings for this power plan". Thus, you can eliminate setting errors in one go.

8 Check drivers and Windows ACPI

Click on "Start" (or press the "Start" button on your keyboard) and type "devices". Then click on "Device Manager". You will see three entries under "Battery". Double-click on all three entries to open their "Properties". Now run a driver update for all three components via the tab "Driver". Restart the Notebook and check whether the problem is resolved. If not then take the next step: Uninstall the components "Microsoft ACPI-conform Battery Control Method" and restart the computer. Windows will automatically reinstall them. If, even this does not work then it has to be taken to a specialist workshop.



1

Sphere Panorama with the iPhone

With just two free tools and a smartphone, you can create a spectacular panorama image where the subject is wrapped around a sphere By Markus Hermannsdorfer

With Photosynth, Microsoft offers a free app which makes it really easy to create high-quality panorama pictures with the iPhone. However, the program creates only animated 3D panoramas. If you want to create a normal photo from this template then you will need a second assistant that is free as well. You can correct the image errors, improve the colours and wrap the image around a sphere with the help of Gimp. We will show you how to do this in steps 4 to 8.

The Photosynth app is also available on the Windows-based smartphones. But the cameras of most of these smartphones cannot match the quality of that in the iPhone. If you follow this workshop using a Windows phone then you will have to compromise a bit in terms of image quality.

Pay attention in particular to the ground

You should select an open space as too many objects on the ground make removal of interfering edges much more difficult. For example, find a town square or a park where there are not too many people around. Generally, the sky does not create many problems, but a random cloud may interfere when you merge the ends of the panorama picture.

Basically, take several photos so that you can choose the most appropriate ones on the PC later. The remaining steps in Gimp

will take a maximum of thirty minutes.

How to proceed

1 Install the Photosynth app

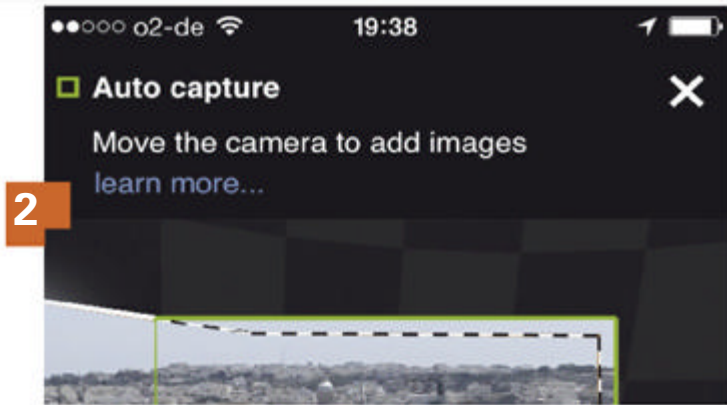
Go to the "Appstore" on the iPhone. Install and open the free Photosynth app on the smartphone.

2 Shoot the panorama picture

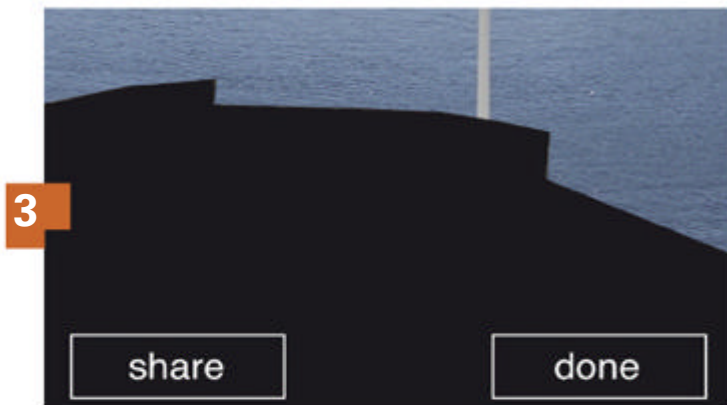
Just tap on the screen - Photosynth will now shoot the first picture. Slowly turn around your with the iPhone. As soon as you reach the border of the photo shot earlier, the app will automatically shoot and add the next photo. If the frame becomes yellow then correct the image position or tap on the screen to shoot a picture manually. A red frame means Photosynth cannot merge the panorama. In this case, move the smartphone back to the last picture. When the circle is complete, tap on "Finish". Photosynth will now merge the individual pictures into a panorama.

3 Send picture via mail

When the picture has been processed, click on "Share" and select "Email". Send the picture to your own email address.



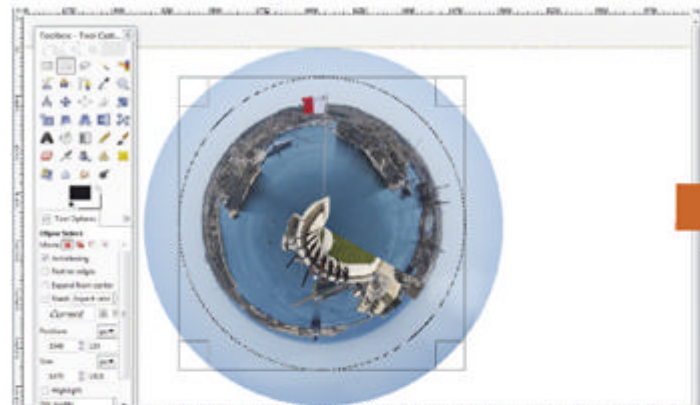
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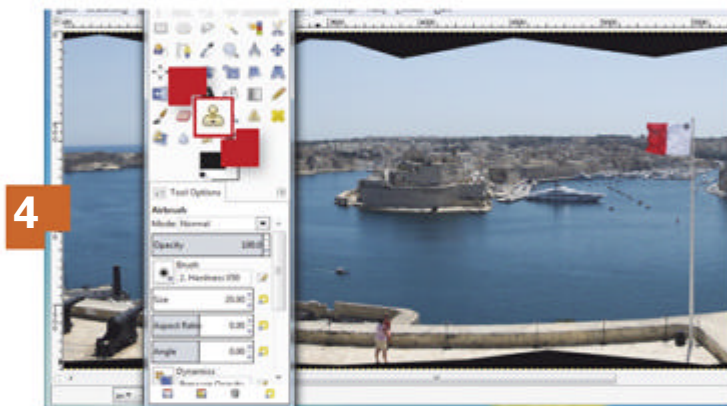
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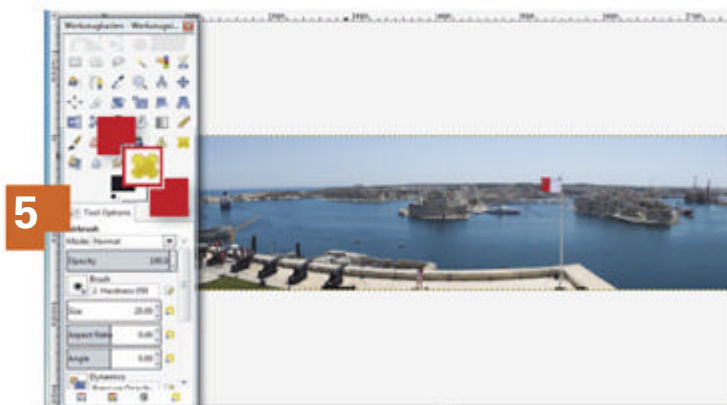
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4

4 Stamp off the black edges

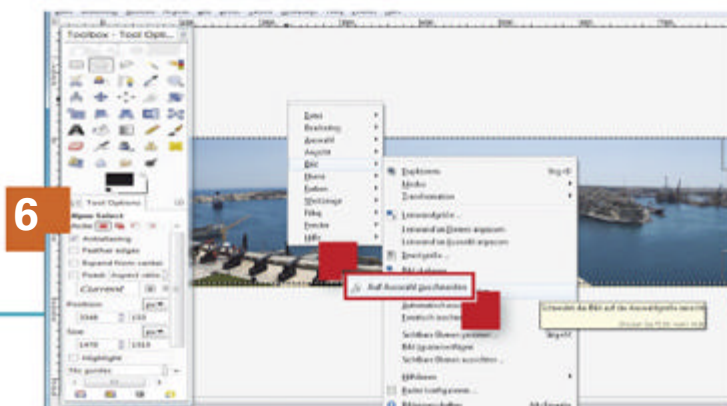
Load your panorama photo in Gimp. It will show jagged, black edges. This is due to the fact that Photosynth generates 3D panoramas. The black edges are developed upon conversion into a standard 2D picture. To remove these edges, click on the "Clone tool" and select a similar-coloured area by keeping the [CTRL] key pressed. You can now stamp off as much black area as possible using the cloning brush.



5

5 Level the dark and bright areas

Darker and brighter areas will develop almost every time in panorama pictures. This can be seen particularly well in a sky panorama. You can level the differences using the "Heal" tool.



6

6 Trim the image

If you were not able to stamp off all the dark areas, then trim the picture at the edges. For this, click on the rectangular "Selection Tool" and draw a frame around the desired image section. Then right-click on the work area and select "Image | Crop to selection".

7 Create the sphere panorama

Select "Filter | Distort | Polar coordinates". After which, you can select via "Start from top" whether the sky should be in the middle (Tunnel effect) or outwards (Ball effect). Using the slider "Offset angle", rotate the spherical panorama such that a striking object appears above. In our picture, we have brought the flag upwards by rotating the panorama. If you are satisfied with the result then confirm the same with "OK".

8 Improve and trim transitions

Some aesthetics are missing: Hard transitions can be removed using the tools "Smear", "Blur" and "Dodge/Burn". Finally use the Selection tool to trim the superfluous edges before you save the finished picture in any format via "File | Export as".

Tips & Tricks

MARCH 2015

WINDOWS

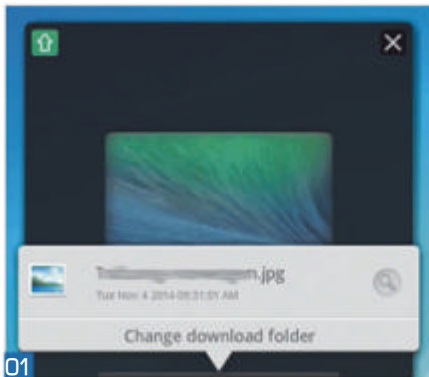
01

Windows

Transfer data between PCs and Apple Mac via AirDrop

You can exchange data between MacBooks and iOS devices using AirDrop. If you want to use this function in Windows as well, you can make use of alternative options. Install the free tool Filedrop on all computers that are to be used to send or receive data. After starting the application, you will see all the PCs connected in the network on which the freeware is running. Move your files to the icon of the receiving computer via Drag&Drop, and after confirming the data transfer, the data exchange will start. Conversely, you can also receive data from other devices.

This also works between Mac and Windows: Download the Mac app Filedrop and transfer your files by dragging the file on to the icon of the receiving PC. iPhone users are also benefits from the software. Using the paid iOS app (~RM11), you can



01

Filedrop moves images or text easily and quickly from Windows PC to Apple Mac and back

transfer data from your Windows PC to iPhones, iPads and iPod Touch.

The other alternative is to use a similar free tool called NitroShare to transfer data between several computers residing on the same network or WLAN. It is available for Linux, Windows and Mac OS X. Install the software on your PC and also on all other computers that needs the service. When the installation is complete, you can start with the data transfer right away. NitroShare uses "Share Boxes" for data transfer. Drag the file to be sent into the ShareBox and select the recipient. The files are then subsequently transferred to the receiving party.

02

Windows 7

Record your desktop and save it as a video file

If you wish to record your screen in order to document a complicated path to a hidden system setting, then you will need a screen recorder. The free



02

After starting CamStudio, you can record the Windows Desktop and save it as a video file

tool CamStudio is perfect for the task. Just install CamStudio and start the program. Under "Region", first select whether you want to record the entire screen or a part of it - select "Region" for a specific area, "Window" for the active running window or "Fullscreen" for the entire screen. Click on the red Record button to start. If you selected the "Region" option, drag a box using the mouse to the desired area. You can pause the recording by pressing the Pause button. Stop the recording by pressing the Stop button and save the video to your preferred location. Easy.

03

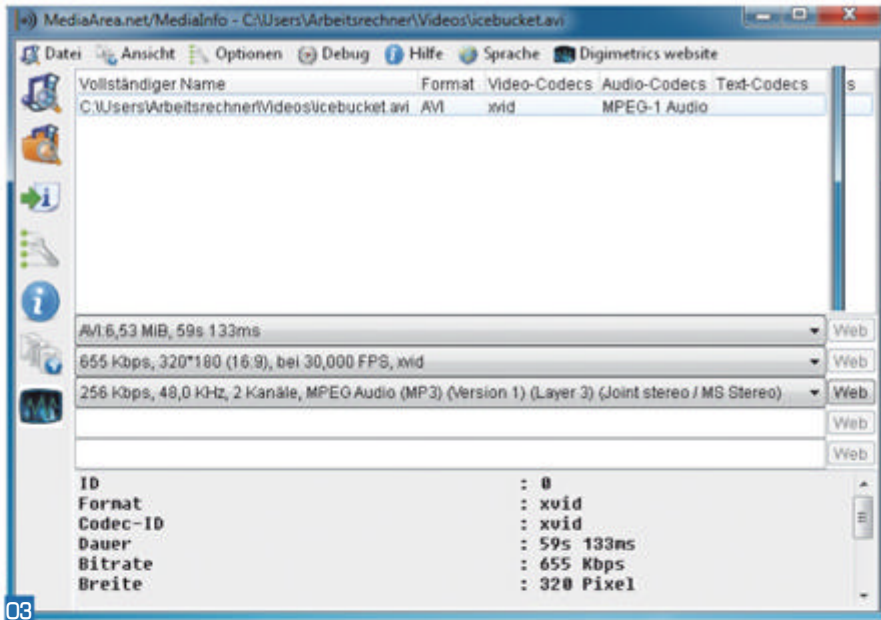
Windows

What to do when a video suddenly stops playing

If Windows unexpectedly refuses to playback a video file, there are different step to be taken that can help rectify the problem. First, try to play the video with another media player - for example, the VLC Media Player. It has its own codecs built-in and helps in repairing defective videos. XMedia Recode has integrated its own codec into the program and can display video in the preview window. You can also convert videos in other formats such as the standardised MPEG2 using XMedia Recode. Zoom Player also can playback defective files and supports many formats. The free tool DivFix++ meanwhile can repair defective DivX files.

Alternatively, you can also try out other players like Winamp, RealPlayer or AVS Media Player. Video converters also worth a try, which includes Super, Freemake VideoConverter, Any Video Converter and Free AVI Video Converter.

If the video still does not play, then probably the correct codec is missing. VLC Media Player will show the codec of the loaded video under "Tools | Codec Information | Codec". Unfortunately, it cannot reliably identify all codecs, so be warned. In this case, install the freeware tool MedialInfo. After which you can right-click the media file to retrieve the Media info. The tool will show you the audio and video codecs used, as well as the link to compatible video players and the



03

MediaInfo shows which codec is needed by a video and makes it available for download

codec developer. Alternatively you can check whether the required codec is included in a codec-bundle, such as the K-Lite Mega Codec Pack.

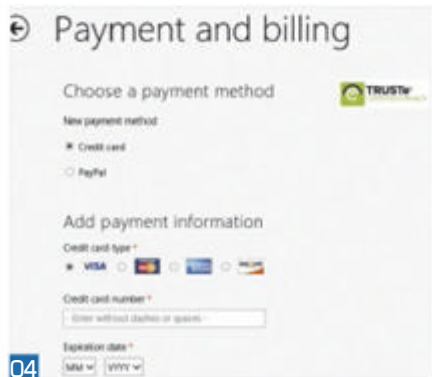
If your video still does not play, then you may re-install the drivers of your graphics card. If the problem still persists, then a system restore at the point when everything was working well might just help.

04

Windows 8

Purchase apps in Windows Store without a credit card

Not everyone has a credit card, and many users do not trust in parting with sensitive information for online payment. If you are looking to purchase apps from the Windows App Store, but without a credit card – just



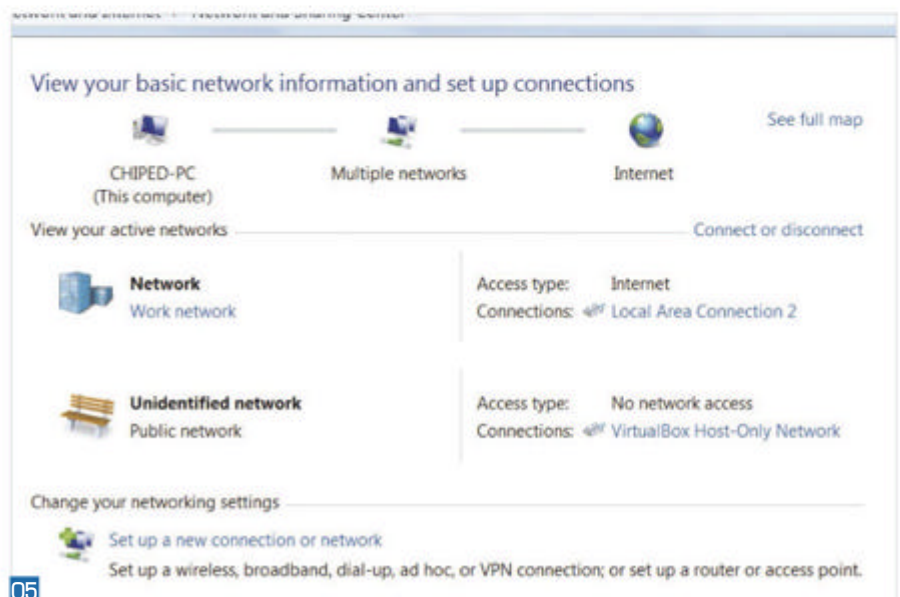
04

Owners of a PayPal account can change the payment method in the Windows App store

follow these steps.

Click on "Account" next to the "Collections" in the top right section of the Windows store. Now the "Your Account" button will appear on the left - click on it. Under "Payment and Billing information", click on the button "Add payment method". Type your Microsoft password here and confirm with "OK". Change the payment method to "PayPal" in the next dialogue and type your billing address. Obviously you must have a PayPal account.

If you are using another Email address for this payment service, then enter



05

If the network is public, then Windows cannot set up any home network group

this address here. You can start paying for your apps in future via PayPal now.

05

Windows 7/8

Resolve typical problems while creating a home network group

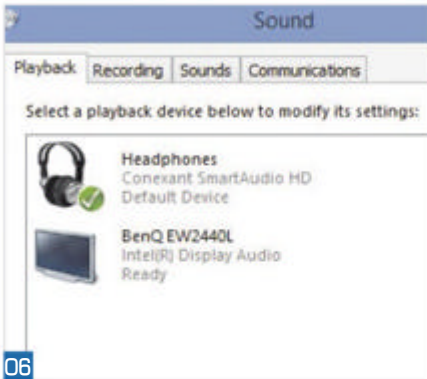
If Windows does not create a home network group then there may be many causes for this to happen. To allow the operating system to create a home network group, there must not be a public network involved in the active connection. To check if this is happening, open the Control Panel and select the "Network and Sharing Centre" under the category "Network and Internet". If you see "Public network" and not "Private network" next to the present connection, then reset the connection. For this, use the "Set up new connection or new network" option.

If Windows still does not create a home network group, then perhaps the services required for it are missing. You can also start them manually by pressing the keys [Windows] + [R] simultaneously to launch the "Run" command. Here, type "services.msc" and confirm with "OK". Then, open "Services". Now look for the services "Peer network and group allocation" and "Home network group provider". If "Started" is not seen in the "Status" row, right-click on the service and select the option "Start".

06

Windows 8**Quickly and easily resolve audio problems**

If you cannot hear any sound in Windows 8, then try the following steps:



Windows 8 plays back sounds only if the loudspeaker is selected as the default device

Reinstall driver: Sometimes a manual reinstallation of the sound card driver proves to be enough. First, uninstall the sound driver under "Audio, Video and Game controller" and install it again via the automatic driver search. Deactivating and reactivating the driver via the Device Manager may also solve the problem. If the automatic driver search does not work then go to the website of the manufacturer and check whether drivers for Windows 8 and Windows 7 are available separately. If required, try again using the driver for Windows 7. Note that you may need to start the installation in the compatibility mode for Windows 7 drivers.

Check settings: Ensure that the sound is enabled by clicking on the Volume icon in the tray (right side on the Taskbar). If yes, then check whether the correct playback device is set. For this, right-click on the Volume icon in the tray and select "Playback devices". Generally, the correct playback device is the "Loudspeaker". If it is set as the default playback device, then you will see a green tick mark next to the icon. If not, then select the icon of the device and then click on "Set as default".

Replace the file for hibernation: It is quite possible that Windows itself is the cause of the error. If the computer goes into hibernation, then the contents

of the RAM are written in a file called "Hiberfil.sys". Sometimes there are problems in playback even after this step. In this case, try the following: As Administrator, give the command "powercfg -H off" to the console. The file "Hiberfil.sys" is deleted because it is no longer required now as the idle state is disabled. You can re-activate the idle state via the command "powercfg -H on".

07

Windows 8**Change user without logging out or shutting down the computer**

There is no need to log off or even shut down the computer if you want to switch users under Windows 8. Press [Ctrl] + [Alt] + [Del] and a blue screen with several options will be displayed. You can log on to another account via "Change user". [Windows] + [L] will lock your account and you can even



Windows 8/8.1 allows you to change users without logging out



Use the red keys to move forwards and backward within the slides

change the user at the prompt screen.

OFFICE

08

POWERPOINT**Remotely control Powerpoint presentations using your iPhone**

You can control your PowerPoint presentation with the help of your iPhone. This gives you the freedom to move around in the room while making your presentation. The only prerequisite is that the iPhone and PC with PowerPoint should be in the same WLAN network.

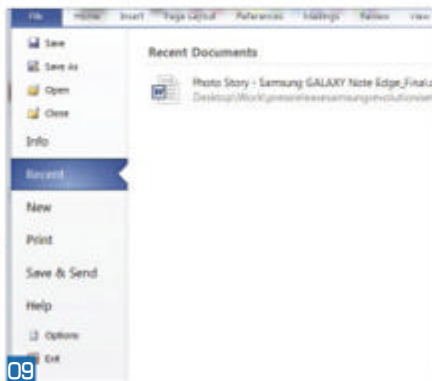
In order to remotely control a PowerPoint presentation running on the PC, you will need the free app called i-Clickr PowerPoint Remote Lite. You will also need the Windows version of the software to be installed and started on the PC, downloadable at www.senstic.com by going to "i-Clickr PowerPoint Remote" under "Apple iOS".

Now open the Remote app on the iPhone. If the smartphone and the computer are connected within the same network, then a connection will be automatically established and you can control your presentations via your iPhone. Should there be problems with the connection, then you need to click on the button next to "Standard Wireless" in the desktop app and enter one of the IP addresses displayed there on the iPhone under "Manual Connection".

09 WORD Quick access to frequently used folders and documents

Fast access to a user-defined folder saves a lot of time. It is also every easy to do. In Word 2010, first open a document which is in your preferred folder. Then, click the "File" tab and select "Last used" in the menu bar on the extreme left. In the middle, you will see the last used documents and on the extreme right you will see the last used folders. There is a pin needle icon next to the folders. Clicking on it will change the appearance and colour of the needle. This is an indication that Word will automatically access this folder first, to open and save files.

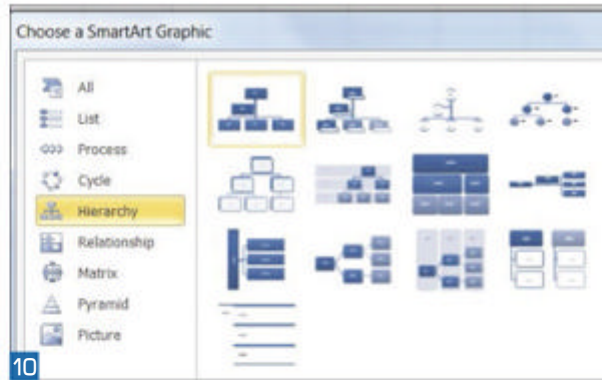
In Word 2013, Microsoft has made a small change. Click on "Open" under "File". The pin needle will appear only when you hover the mouse over the folders. The rest is the same as described for Word 2010.



In Word 2013 you will find the pin needle to define the preferred folders via »File| Open«

10 EXCEL Make an organisational chart for illustrating structures

You can illustrate a company structure with the help of an organisation structure. This can be done with a few clicks in Excel. Open the "SmartArt" tab under "Insert" in Excel - you will see the option "Hierarchy" in the area



Organisation charts are denoted as hierarchy in Excel. You can add them using the SmartArt function

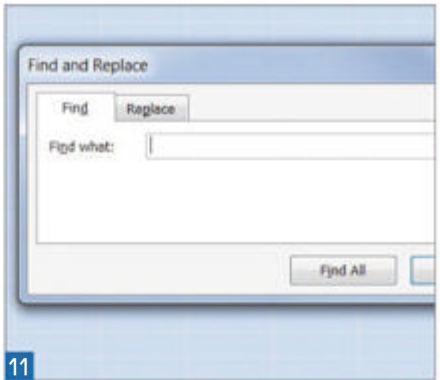
"Insert SmartArt Graphics". Click on it and select the desired design.

After you have created the organisation chart, you can fill it with contents related to your organisational structure. New fields can be created by clicking on the Plus icon in the text area window. The structure can be changed by moving the collection of elements. The wider the insertion, the deeper is the element in the hierarchy. When you click a specific field in your organisation chart, you can move it randomly and make the distances between the layers clearer. You can change the colours and shapes of all elements by right-clicking on the entire frame. You can also colour and format every single element as per your wish by right-clicking on any one element.

11 EXCEL Search specific areas of a table using shortcut keys



Regular maintenance increases the life of the lamp and lets you enjoy movies in highest quality



A quick way to search for a needed value in an Excel document

You can search specific areas of a table in Excel at lightning fast speed. Press the [Ctrl] key and select the area which you wish to search. Subsequently press [CTRL] + [F]. Now type the word you wish to search and click on "Find Next".

HARDWARE 12 PROJECTOR Extend the life of the device by cleaning the filter

Rule of thumb suggests that the projector filter must be cleaned after approximately 100 hours of usage. Before you start with this task, you should disconnect the projector from the power supply. If you have used the projector a short while ago, then you

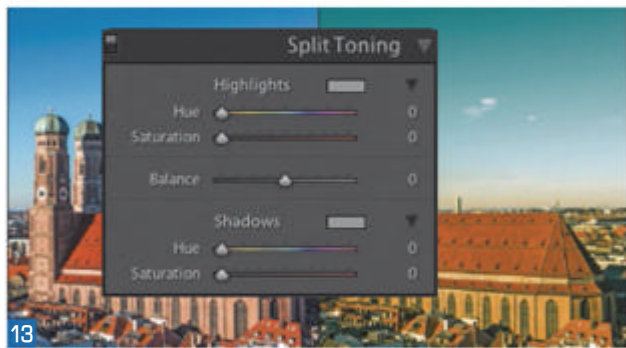
13

LIGHTROOM**Create interesting light mood using split toning**

You can achieve interesting colour effects in your images in Adobe Lightroom by using the so-called split toning effect. To use split toning in a photo, select the photo and then switch to the "Develop" mode. Scroll down the editing bar on the right side to the option "Split toning".

The basic function of split toning is to colour all the bright and all the dark areas of an image separately in a specific hue. In Lightroom, you will find two switch groups accordingly in which you can define a hue and its saturation for lights and shadows respectively.

The easier way is to select a hue by clicking the rectangular colour field and making a selection using the visible colour palette. You can also hover over the palette keeping the mouse pointer pressed and thus observe the change directly in the photo. Use the grey slider "Balance" to additionally shift the ratio of colouring between light and shadows.



13

Split-toning gives you freedom in determining how the tone of your developed picture is going to be

14

SUBJECT**Emphasising the details of a vintage car**

Car pictures can be boring if you take lock, stock and barrel. It is better to highlight the details on the vehicle. Vintage cars have features that should be emphasized in a photo. For example, one can focus on wheel hubs, speedometer, gear stick, headlamps and door handles. Even the hood ornament makes the vintage look



Every antiques has features which make it unique. Emphasize these details in your picture

unique. Focal lengths of around 50mm is well-suited for close-ups, as it gives a similar image impression as the human eye would perceive it. Strong distortions, typical for wide angle lenses, do not occur. Also, deliberately try to play with the focus. You can thus shift the attention of the viewer specifically on the desired details. Even bold subjects are worth a shot: Seen from up-close, folds and door edges, fenders and tyres converge into almost surreal paintings.

15

LIGHTROOM**Add GPS coordinates to selected images later**

You can easily "Geo-tag" to your pictures in Adobe Lightroom - i.e. add GPS coordinates of the photo location to the photo. Thus,

you can organise photos as pins in an



15

Successfully tagged images are displayed on an interactive map

interactive world map.

To tag your pictures, you first have to import them in your Lightroom catalogue. Then, select those photos from the library to which you wish to add GPS coordinates. You can also tag several pictures at the same time with the same location if you click them in succession by keeping the [Ctrl] key pressed. Go to the "Map" menu on top right. Now determine the location of your photo on the map. You can also use the Search function in doing so.

When you have found the correct location, right-click on it and select the option "Add GPS Coordinates to the selected pictures". The appearance of the needle icon will confirm that Geotagging has been successful.

Tip Nowadays, quite a few cameras can independently save the location of a picture - particularly if it is captured using a smartphone. But do check whether you can use the function in your camera so that you don't need to do manual tagging later on.

16

IMAGE EDITING**Convert photos online into a drawing**

It is not compulsory to have a software to edit photos on your PC! You can easily apply effects to your photos completely for free online, on sites like www.freeonlinephotoeditor.com. The page is designed clearly for ease of use. You have the option to either to upload your own files or from a web address you specify. However, your pictures must not be larger than 6 MB,

or else the photo will automatically be reduced to a resolution of 1024x768. You can start editing your photo directly after you have uploaded it. Click on "Effects" and then on

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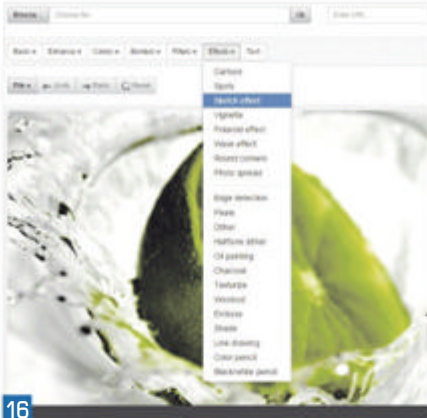
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"Drawing". This effect will then be applied to your photo. You can add several effects one after the other to your photo this way.



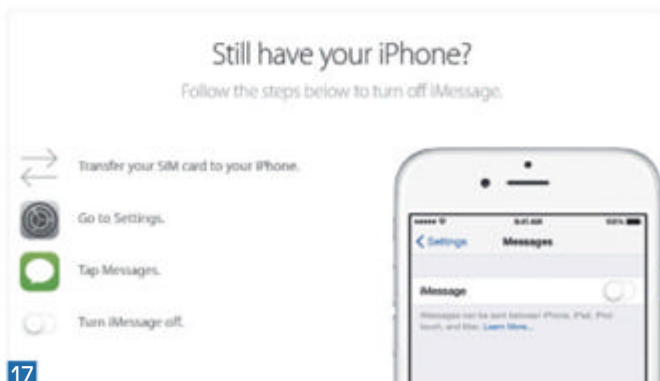
16 To convert your picture to a drawing, just select the appropriate effect

MOBILE

17 iOS Disable iMessage service without an iPhone

If you are switching from iOS to Android and have used iMessage before, then your SMSes in some cases will be sent to your iMessage account and not as a standard SMS. You can disable this function if you are no longer using the iOS platform.

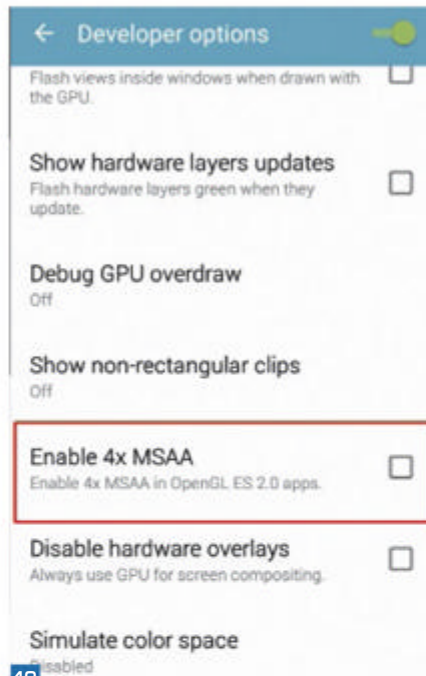
Go to the website selfsolve.apple.com/deregister-imessage and scroll down a bit. Under the question "No longer have your iPhone?" select the correct country and type your cell phone number. You will receive a six-digit code via SMS when you press the button "Send Code". Type the code in the lower field and confirm by pressing the "Submit" button. iMessage will



17 To deregister yourself successfully from iMessage, you must take efforts and visit a website specially created for the same

now be automatically disabled by Apple for you.

18 ANDROID Improve the graphics quality of games by activating anti-aliasing



18 Android programmers have hidden the anti-aliasing in the developer options

Your smartphone games will appear more beautiful than ever with Anti-Aliasing - also called edge smoothening. The so-called Multisample Anti-Aliasing (MSAA) is used under the Android system. You will find the option for the settings in the developer options menu.

Open the "Settings" menu. Then scroll till you see "Developer options" and tap on it. If it does not work, scroll down till the menu item "About Phone" or "About Tablet". Tap several times on "Build number". You will subsequently see the "Developer options" under the "System" entry.

In the developer options, look for the item "Activate 4x MSAA" in the "Drawing" menu and set the check mark next to the option. You can now exit the settings and enjoy your game with full graphics power.

19 SMARTPHONE Use your mobile as a microphone for SingStar Ultimate Party

In the karaoke game SingStar Ultimate Party for PS4, you do not need to depend on a classic microphone to play. You can just pair your smartphone (with the appropriate app installed). We will show you how to convert your smartphone into a SingStar microphone.

First download the "SingStar Mic" app. You will find the program in the App Store for iOS devices as well as with Google Play for Android. As soon as you have installed the app, start SingStar Ultimate Party on your PlayStation 4. Ensure that the console is connected to the Internet.

Open the app and select "Connect". The console and smartphone must be present in the same network so that the application can find PlayStation4. Select your PlayStation 4 as soon as the app has found your console. A menu will open where you have different options to select. Select the "Microphone" option.

Your smartphone is now registered on the PlayStation 4 as a microphone. You can also break the connection by swiping the lower button to the right. But then, don't forget to sing! 🎤



19 Android programmers have hidden the anti-aliasing in the developer options



6/2/2014 - Models posing at the Alienware launch



14/2/2015 - Gamers getting their hunting hats on as they eagerly begin playing the new Monster Hunter 4 Ultimate



6/2/2014 - The new Alienware laptops together with models



5/2/2014 - picture taken with the new OM-DE-M5 interchangeable lens camera



14/2/2015 - You can find many interesting items during this item sale at the launch for Monster Hunter 4 Ultimate and Legend of Zelda Majora's Mask



12/2/2014 - Nicholas Wodtke showing off the new Samsung Milk music streaming service during the Samsung Forum 2015



12/2/2014 - A model posing next to the new Samsung SUHDTV at the Samsung Forum 2015



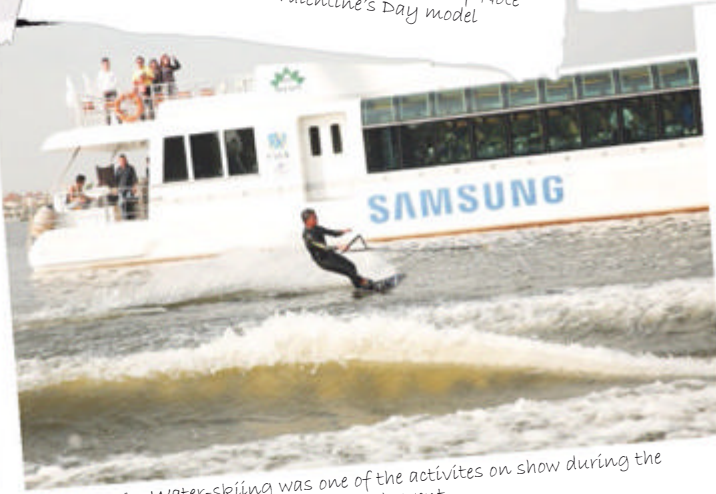
9/2/2014 - Models posing with the new Samsung GALAXY Note Edge during the cruise



12/2/2014 - A special pink Samsung GALAXY Note 4 was unveiled as a limited Valentine's Day model



12/2/2014 - The Samsung VR prototype was also showcased at the Samsung Forum 2015



9/2/2014 - Water-skiing was one of the activities on show during the Samsung GALAXY Note Edge launch event



12/2/2014 - The Samsung Powerbot is the spiritual successor to the very popular Samsung Muvibot vacuum cleaner

Next Issue



Mobile World Congress

New smartphones, latest wireless technologies, and more – CHIP will be flying off to Barcelona to check out what is new, amazing and interesting from the world of mobile technologies. What is exciting and coming our way soon? We have the dirt on that.



Mobile Operating Systems

Android 5 is the latest update of the most popular mobile operating system. But both its competitors - the iOS and Windows Mobile are rolling out updates. Which system is the best for 2015? We conducted a detailed comparison and we will show you the advantages and the disadvantages of each platform.



No More Data Loss

With the help of the most widely used NAS systems from QNAP, Synology and Western Digital, we will show you how to set up a fully automatic backup that synchronises files from many PCs on to the NAS and saves space by storing hourly or daily snapshots of the backed up data with hard links.

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